GAMBIT

How to Calculate Chess Tactics

Valeri Beim

A revealing look at the nuts and bolts of chess thought

How to Calculate Chess Tactics

Valeri Beim

Translated by Steve Giddins

GAMBIT

First published in the UK by Gambit Publications Ltd 2006

Copyright © Valeri Beim 2006
English translation © Steve Giddins 2006

The right of Valeri Beim to be identified as the author of this work has been asserted in accordance with the Copyright, Designs and Patents Act 1988.

All rights reserved. This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out or otherwise circulated in any form of binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

ISBN-13: 978-1-904600-50-3
ISBN-10: 1-904600-50-6

DISTRIBUTION:
Worldwide (except USA): Central Books Ltd, 99 Wallis Rd, London E9 5LN, England.
Tel +44 (0)20 8986 4854 Fax +44 (0)20 8533 5821. E-mail: orders@Centralbooks.com

Gambit Publications Ltd, 99 Wallis Road, London, E9 5LN, England.
E-mail: info@gambitbooks.com
Website (updated regularly): www.gambitbooks.com

Edited by Graham Burgess
Typeset by Petra Nunn
Cover image by Wolff Morrow
Printed in Great Britain by The Cromwell Press, Trowbridge, Wilts.

10 9 8 7 6 5 4 3 2 1

Gambit Publications Ltd
Managing Director: GM Murray Chandler
Chess Director: GM John Nunn
Editorial Director: FM Graham Burgess
German Editor: WFM Petra Nunn
Webmaster: WFM Helen Milligan

Contents

Symbols	4
Introduction	5
'The Devil is in the Detail'	7
Part 1: Tactics in Chess	**8**
What are Tactics and Combinations?	8
Tactics in Practice	18
Blow for Blow	24
Logical Analysis	30
Developing Tactical Skills	42
Exercises for Part 1	**51**
Part 2: The Technique of Calculating Variations	**58**
Calculation and Tactics	58
The Technique of Calculating Variations	64
What to Do Before Starting to Calculate	71
Unclear and Complex Situations	80
The Role of Judgement	86
When to Stop Calculating	94
Calculation by Stages	98
Concrete Action to Realize an Advantage	104
Resulting Moves	110
Summary	125
Calculation Training	126
Conclusion	131
Exercises for Part 2	**132**
Solutions	**143**
Solutions for Part 1 Exercises	143
Solutions for Part 2 Exercises	155
Index of Players	173

Symbols

+	check
++	double check
#	checkmate
!!	brilliant move
!	good move
!?	interesting move
?!	dubious move
?	bad move
??	blunder
+–	White is winning
±	White has a large advantage
⩲	White is slightly better
=	equal position
⩱	Black is slightly better
∓	Black has a large advantage
–+	Black is winning
Ch	championship
Cht	team championship
Ct	candidates event
Wch	world championship
Wcht	world team championship
Ech	European championship
Echt	European team championship
ECC	European Clubs Cup
tt	team event
jr	junior event
wom	women's event
OL	olympiad
rpd	rapidplay game
simul	game from simultaneous display
1-0	the game ends in a win for White
½-½	the game ends in a draw
0-1	the game ends in a win for Black
(*n*)	*n*th match game
(D)	see next diagram

Introduction

This book is not typical of the majority of books about tactics, or collections of combinations, nor does it contain a conventional classification of combinations by theme. However, the reader will find plenty of combinations themselves, and the book will also cover, from an original and unconventional standpoint, a number of wider questions. Most of all, it is concerned with two of the most important subjects in chess – tactics and the calculation of variations.

I am convinced that there can be no doubt of the special importance of these two subjects, because there is not a player in the world who has not frequently (I emphasize – *frequently*, not just once or twice) suffered from one of the following:

a) overlooking a possible tactical blow from the opponent;

b) failing to seize the opportunity of a favourable tactical resolution to the problems of the position; or,

c) simply being outclassed by his opponent in the art of calculating variations, which as we shall see, consists of a number of components.

Alternatively, let us take the example of such a vital aspect of chess as the ability to place one's pieces on the most favourable squares. Even where the correct formation is obvious to the player, he still has to carry out the necessary regrouping in the correct move-order. And the correctness of the latter depends wholly on accurate calculation of variations. An error in this department can wreck even the most immaculate positional conception. Furthermore, a weakness in tactics and the calculation of variations can cost a player dearly, even in the most favourable of positions. Such situations have, without doubt, occurred in the practice of every chess-player.

There is one other aspect of this problem. Positional errors can damage one's position, but rarely in a way that is immediately fatal. By contrast, mistakes in calculating variations (especially overlooking tactical resources, be they for oneself or the opponent) can, and often do, lead to a serious deterioration in one's position, if not an immediate loss. Furthermore, as you will see in this book, in many positions it is difficult, if not impossible, to arrive at an accurate assessment without calculating concrete variations. In other words, the ability to calculate variations has a significant influence on a player's positional judgement.

And there is one final, but highly important, consideration. Let us ask ourselves this question: of all the qualities a chess-player needs for success, which is the most important? Of the many possible answers, I think we can agree with this one: the ability *to win*! And the most important element in this is the player's tactical mastery and ability to calculate variations. If a player has an insufficient level of skill in this respect, it is extremely difficult to achieve success in chess, just as a soccer team cannot win without having at least one player who can put the ball in the back of the net.

From all that has been said, one inescapable conclusion follows: although chess consists of many different elements, *the single most important factors in deciding the outcome of a game of chess are tactics and the calculation of variations.*

As my regular readers will notice, some of the problems we shall deal with in this book have already formed the subject of one chapter in my first book *Chess Recipes from the Grandmaster's Kitchen*. It is now time to reveal that that book consisted in the main of a series of articles about different themes, almost a collection of draft outlines. It had always been my intention that those parts of the book which dealt with the most important issues would be covered in more detail in separate volumes, and the present book represents the first of these. In this regard, I should point out that in

it, I have not repeated any of the examples used in *Recipes* and that with only insignificant exceptions, nothing presented here has appeared before in my other books. I have also tried, to the greatest possible extent, to use in this book the most recent and up-to-date material, in particular games from the past three years. Having said that, I have also used some examples from the classics, but mostly ones that should not be overly familiar to most readers.

The quantity of material presented here is considerable, but the amount available to me was even greater. To keep the coverage concise, I have mostly quoted game fragments, and have only rarely given complete games. In addition, in the 'Exercises' section, when presenting the solutions, I have often added additional material to that in the main body of the book, offering further conclusions and advice.

Despite all that I have said above about the importance of the subject covered here, I am sure that many chess lovers will inevitably wonder whether yet another book is really needed on a subject about which so much has been, and continues to be, written. What in particular can the reader expect to find in this book, other than just some newer examples of the same topics? I have said before that I never start work on a book unless I can say that I have something new to present. Whether great or small, there is always something new in my books. On this occasion, I shall present you with an especially significant number of completely original considerations, conclusions and recommendations, which in the main are either contrary to the generally-accepted views, or in some cases supplement and develop these views. It follows from this that the book is inevitably somewhat polemical in places, and this is especially true in relation to the work of Grandmaster Kotov, who in the past wrote a good deal about the same subject.

As with my previous books, I politely request that my readers send me their comments on what they read here, irrespective of whether these comments are favourable or otherwise. Both your praise and your constructive criticism will be received with my gratitude. My e-mail address is valeribeim@gmx.net

Valeri Beim
Vienna, June 2006

'The Devil is in the Detail'

I have chosen this well-known saying as the epigraph because it sums up very well the main message of this book: *chess is a game of schematics only to a limited, and not very great, extent.* Details, or apparent 'trifles', often play a decisive role in chess. So, for example, it may prove extremely difficult or even impossible to achieve a favourable disposition of one's forces, because the concrete path to the desired aim is either too complicated, or maybe does not exist at all. And this itself depends on the specific, concrete characteristics of the position – in other words, on its details, sometimes almost imperceptible at first glance, and therefore difficult to identify. Tactics and the calculation of variations are concerned with precisely this *identification and elaboration of the details of the position.* But before moving on to such matters, it is essential to formulate the precise themes and subjects to be studied – in other words, to define each precisely, so that we know what we are talking about and do not end up discussing different things under one and the same name. And, although the terms 'tactics' and 'calculation of variations' are familiar to everyone, even those who only play chess occasionally, defining them is not easy.

Part 1: Tactics in Chess

I believe that in chess, everything depends on tactics.
TIGRAN PETROSIAN

Amongst masters, combinative and positional play complement each other. With combinations, they attempt to refute false values, and by positional play to demonstrate true values.
EMANUEL LASKER, *The Manual of Chess*

What are Tactics and Combinations?

We begin by identifying the essence of the matter under consideration. It will soon become apparent that, although the term 'tactics' appears on nearly every page of nearly every chess book, it is far from simple to find its exact and accepted meaning, just as it is similarly difficult to do so with other very important elements connected with tactics.

For example, this is how the elusive term is defined in the substantial tome *The Chess Dictionary*, published in Moscow in 1990: "Tactics is the sum total of the devices and methods of carrying out the specific chess operations, which enter into the strategic plan and its fulfilment." What can one say about this definition? Do you understand what it is saying? I for one do not, and it is all the more difficult to agree with it, because it is quite unclear on what grounds one should distinguish tactical devices and methods from non-tactical ones. Or should one consider all such means to be tactical? But does that then mean that everything in chess is tactics?

Evidently, a clearer definition is needed. I believe that the following is best: *tactics deal with current problems*, that is, problems which need to be solved *here and now*. Another very important factor, it seems to me, is that in chess the distinction between tactical and other methods of solving a particular problem results to a significant extent from the player's *emotional perception*. What I mean is that chess-players traditionally consider an operation to belong to the realm of tactics when it is at first glance unexpected, non-standard, often sharply changing the development of the action on the board, or its intensity. In ordinary life, such events are frequently described as *revolutionary*.

Tactics in chess consist of two basic elements: *tactical blows* (sometimes called combinative blows) and *combinations*. For several centuries, these two highly important and well-known elements have not been adequately distinguished and formulated, although many attempts have been made. It may seem that there is no great necessity for this, since any player, of even minimal experience, can recognize a tactical blow or combination when he sees one, but nonetheless, it is always useful to have a precise and clear formulation of basic principles, of whatever sort.

The advantage is that a successful formulation, which accurately describes the characteristics of a phenomenon, helps in detecting the presence of that phenomenon in a complicated situation, and in this way, even a relatively weak or inexperienced player can find himself able to do things that previously had seemed impossible for any but a master. However, I should like to add that although tactical blows and combinations are two separate things, if you try to work out (even in your imagination, let alone putting it into words) what exactly is the difference, you will soon run into problems.

Nonetheless, let us try: what is the difference? In order to answer the question correctly, one needs to come up with a definition of each term, but before attempting this ourselves, let us see what other authorities have said about this.

A Tactical Blow

"A combinative blow [we have already said that the terms tactical blow and combinative blow are interchangeable – VB] is the first move of a combination, usually involving a sacrifice, and frequently unexpected for the opponent." – *The Chess Dictionary.*

In principle, this is not a bad definition, and agrees to a fair extent with what we have already said about tactics. It implies the essential element of revolutionary change, which is very important. In order to agree fully with the definition, we need only make one or two small modifications. Firstly, a tactical blow can be an independent thing, and need not always have a continuation in the form of a combination. Secondly, a tactical blow is not always connected with a sacrifice (and, indeed, doesn't have to be the first move of a combination, although this is an insignificant detail), but it must always be 'revolutionary', i.e. radically changing the situation on the board.

It is easy to see that the characteristics identified here concur with the definition of tactics which we suggested earlier. This is not surprising, *since a tactical blow is merely the smallest individual unit which exists within the overall phenomenon that we call tactics.* How is one to understand this phrase? Because tactics cannot be measured as a quantity ("Weigh me out 200 grams of tactics, please!"), tactics cannot be considered as a substance, but is instead a phenomenon, and its physical manifestation on the chessboard is in the form of individual tactical blows. It is easiest to imagine this by analogy with a wall. A wall cannot exist as a whole in itself, but consists of various elements – cement and bricks, either wooden or stone. Thus it is in chess – tactical blows are to tactics what bricks are to walls.

And finally, the most famous member of the tactics family – the combination.

The Combination

The attempt to find a definition of this term which is accurate and acceptable to all has been attempted many times. The best-known definition was formulated by Botvinnik: "A combination is a forcing variation with a sacrifice, leading to the advantage of the perpetrator."

This seems to me an entirely satisfactory definition, except for one important detail, the correction of which I shall leave until later. However, Botvinnik's definition has been criticized, if only because everybody loves to criticize. The critics have mainly focused on the fact one can sometimes have a combination which does not involve a sacrifice. As a result, other definitions have also been put forward.

One attempt to improve the definition is offered in the aforementioned *Chess Dictionary*: "A combination is a forced variation which utilizes various tactical devices; the sacrifice is an element which is usually present." In essence, this definition is not far removed from Botvinnik's, except that it includes reference to tactical devices, and does not absolutely require the presence of a sacrifice.

This is already very close to my own view of the matter, but it seems to me that it too is capable of some small improvement. I therefore offer the reader my own definition, based on the conclusions we have drawn above: *a combination is a system of tactical blows and their interconnections, having a forcing character, and leading to favourable consequences for the perpetrator.*

It is a system, because in a combination, often an initial tactical blow and its immediate consequences are frequently followed, after a few moves, by another tactical blow, and so on. The forcing nature of a combination is an important element, while their interconnections provide for a series of moves, not themselves containing a revolutionary element. A combination aims to bring an advantage to its perpetrator, which largely agrees with Botvinnik's definition.

And now, let us pull together what we have said so far about tactics.

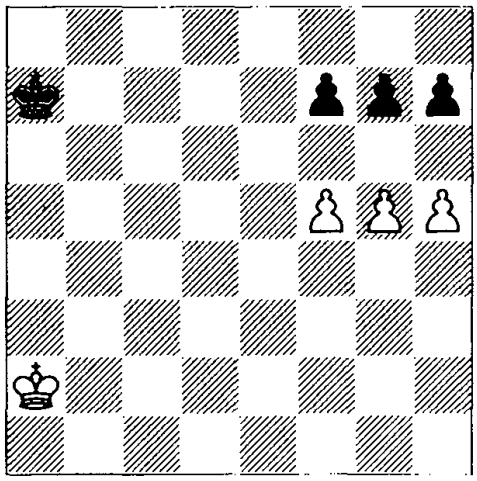
- Chess tactics are concerned with problems which require urgent resolution.
- Chess-players traditionally consider as tactics methods of play which at first glance appear *unexpected, unorthodox, often changing radically the direction of events on the board or the intensity with which these events flow.*

In other words, things which are generally called *radical* or *revolutionary*.

- Tactics is an abstract conception. It materializes on the board in the form of *tactical blows*, which are themselves a form of revolution in chess, and are at the same time the smallest elements within tactics. It is from these elements, or building blocks, that combinations are constructed. *A combination is a system of tactical blows and their interconnections, having a forcing character and intended to be to the advantage of the perpetrator.*

This theoretical digression has proved rather prolonged, but it was difficult to dispense with it, because firstly, the subject has been studied quite deeply already, and secondly, the precise and clear definitions thus arrived at form the underpinning for the whole of what follows. And now I invite you to study some examples that will show up the various aspects of all that has been formulated above and, perhaps, may also clarify and enhance your interpretation of the definitions suggested. We begin with two very simple and familiar situations:

W



White wins by means of a well-known idea. First, the 'simple' step:

1 g6 fxg6

And now a 'jab', to knock out the last obstacle in front of the prospective passed pawn:

2 h6! gxh6

Finally the concluding step:

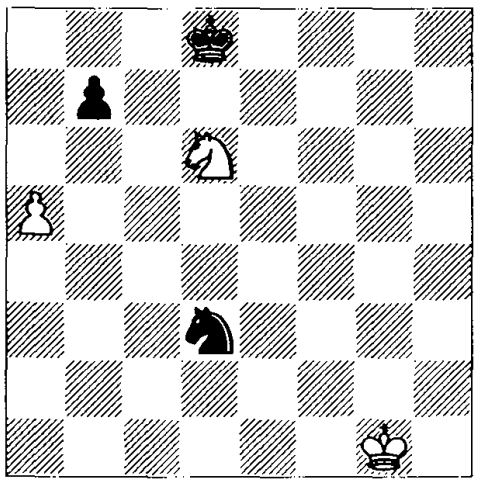
3 f6

winning.

From a technical point of view, it is all very simple. But I would like to draw your attention to White's second move and its role in the process. To a novice especially, it comes as a surprise, because it involves a sacrifice and it sharply changes the general pace of the previous play. Everything which has been said means that we are fully justified in applying to the move the adjective 'revolutionary', which as we have already discussed, is the key sign that tactics have appeared on the board. In other words, the tactics (which we have already said is an abstract concept) appear in this situation by means of the tactical blow 2 h6!. White's entire operation fits into our definition of a combination, because it consists of a tactical blow on the 2nd move (not the 1st!), which is the essential follow-up to the manoeuvre begun on the 1st move, and this is then crowned in turn by the forced follow-up of White's 3rd move. In other words, White's 1st and 3rd moves are integrally connected with the tactical blow. What we have, then, is what was discussed earlier, namely tactical blows (in this simple case, one such blow, but often there are several), and essential interconnections, which together form the united whole that we term a combination.

Now another well-known example:

B

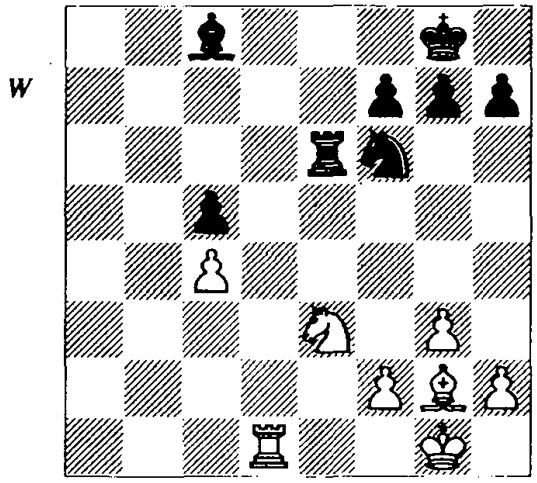


It is easy to imagine Black playing the natural, but unfortunately fatal, move 1...♘c5?? and offering a draw. The reply, undoubtedly, would be "I prefer to play on!": 2 ♘xb7+!! ♘xb7 3 a6 ♔c7 4 a7! and wins.

Here, too, it is apparent that White's 2nd move is a tactical blow, and the rest of the line is forced, and that all of the moves are interconnected, including White's 4th move, which crowns the whole operation. This is exactly what we have described earlier.

Thus, even at this early stage, I would venture to conclude that the original definitions I offered earlier of the elements of tactics and their interrelationships are borne out in practice, and we can confidently employ them as a tool for our further work.

So as to consider the subject in more detail and from some other aspects, let us look at a few more examples.



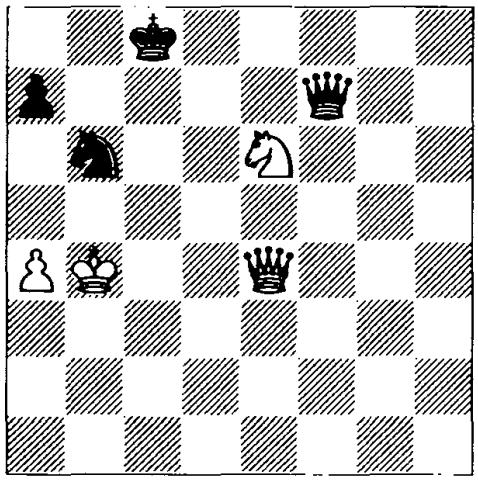
Graf – Carlsen
Spanish Team Ch, Sanxenxo 2004

The solution to this position depends on a method which we shall consider in detail later on. For now, we shall merely summarise White's thought-process as follows: "Because the opponent's only, but nonetheless adequate, defence against the blows 29 ♖d8+ and 29 ♗h3 is the move 29...♖e8, we need to seek a means of stopping that move." Once we consider this, the solution soon comes to mind:

29 ♗c6! 1-0

One can hardly call this example a combination – rather, it is like a single sword-thrust. This shows that tactical blows do not only occur as part of combinations, but can also appear in isolation, although this is relatively rare.

The following endgame study looks like a fragment from an ordinary tournament game:



White to play and win
E. Pogosiants
Znamia Yunosti (Minsk), 1963

It is not immediately obvious how White's piece activity can be converted into victory, but this is not the end of the world. In situations like this, the player who wields the initiative should not offer a draw, and instead should merely seek the most promising way forward and make a few steps in that direction. Once he has done so, he can see things more clearly than is the case in the initial position, and the path to victory, if it exists, often becomes clear. So, bearing that in mind, let's go! Firstly, let's get the queen a little closer to the target:

1 ♕c6+ ♔b8 2 ♕d6+

Not allowing Black innumerable checks: 2 ♘c5? ♕f4+ 3 ♔a5 ♕d2+ 4 ♔a6 ♕e2+ and draws.

2...♔c8

2...♔a8 is equivalent.

And what now? Let's try another check:

3 ♕d8+ ♔b7

Suddenly, the penny drops:

4 ♕xb6+!! ♔xb6 5 a5+

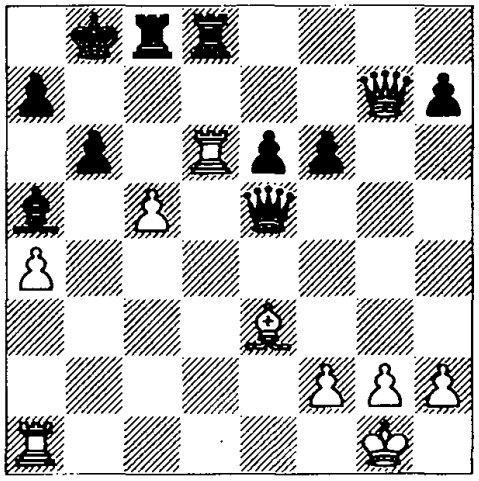
White wins: 5...♔a6 6 ♘c5#; 5...♔b7 6 ♘d8+.

Why was it hard to see White's miraculous 4th move? Of course, because it is exactly another of those revolutionary moves we have spoken about before, a move which is completely at

odds with the normal rhythm of life. It is a move which is unexpected, sharp and exceptional. The human psyche does not cross such barriers without special effort.

And now one more striking example, which consists of two tactical blows. Only one actually appears on the board, but the other is equally vital:

W



Al. Karpov – Ovechkin
Russian Team Ch, Smolensk 2000

White has an obvious advantage, and after the natural 27 ♖ad1 ♖xd6 28 cxd6 Black's task would not be easy. However, in the game, the player of the white pieces (who, I should point out, is *Alexander* Karpov, not the former World Champion) finds an even better move, which ends the game rapidly:

27 ♗f4!!

Brilliant – extremely unexpected, striking and effective!

27...♕xf4

One very nice variation is 27...♕xa1+ 28 ♖d1+! and White has a technically winning position after 28...e5 29 ♖xa1 exf4 30 cxb6. In this variation, without doubt, the crosscheck on move 28 plays the part of 'first violin', and fully deserves to be described as a tactical blow: it is unexpected, and sharply changes the course of events. It is also clear that a move which brings about such a sharp and significant change in matters deserves to be called revolutionary. Furthermore, the possible capture of the rook by Black at move 27 is a tougher defence, but then follows an even more striking refutation, and psychologically, it is difficult to allow the opponent to play such an unusual and striking move. This shows that psychological factors are also relevant to the subject under discussion.

28 c6! 1-0

If 28...♖xc6 29 ♖xd8+ ♖c8 30 ♖ad1 Black's position is hopeless.

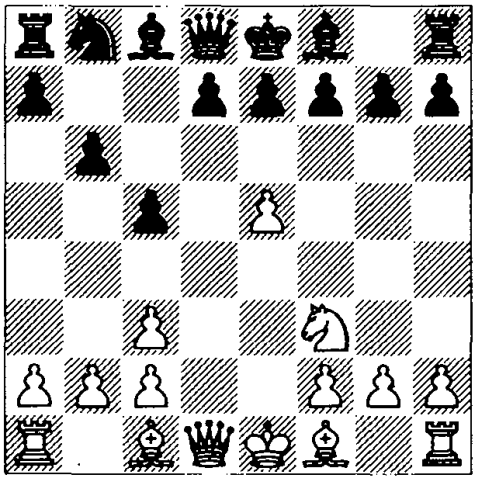
The following game was decided by a tactical blow right at the very start:

Petrosian – Grigoriev
Tbilisi 1945

1 e4 c5 2 ♘f3 ♘f6 3 e5 ♘d5 4 ♘c3!? ♘xc3 5 dxc3 b6? *(D)*

The first mistake, and already the decisive one. Such things happen occasionally in very sharp opening variations – Black's 2nd and White's 4th moves have given the game a very sharp character. An example of correct play by Black is Moiseenko-Nataf, Kapuskasing 2004: 5...♘c6 6 ♗f4 h6 7 ♗d3 e6 8 ♕d2 ♕c7 9 h4 b6 10 0-0-0 ♗b7 11 ♗e4 0-0-0 12 h5 ♘a5 with chances for both sides and only a minimal advantage to White. After the game continuation, lightning appears suddenly in a clear sky (and lightning is itself a revolutionary development – this time, within nature!).

W



6 e6! dxe6

Black's game is also hopeless after the other capture: 6...fxe6 7 ♘e5 g6 8 ♕f3 ♕c7 9 ♕f7+!

♔d8 10 ♗f4 d6 11 0-0-0. Nor is it evident how he can save himself after 6...♘c6 7 ♘g5! fxe6 (7...dxe6 8 ♕f3 loses even more quickly) 8 ♗d3 g6 9 ♕f3 ♕c7 10 ♕f7+ ♔d8 11 ♗f4 ♘e5 (11...e5 12 ♗e3 +—) 12 ♗e4 ♗h6 13 ♗xe5 ♕xe5 14 f4 +—.

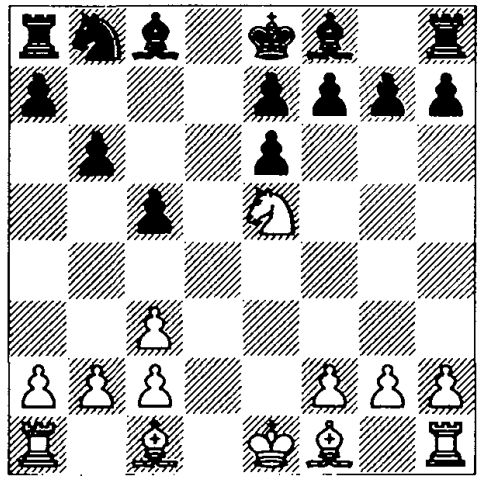
7 ♕xd8+!

7 ♗b5+ ♗d7 8 ♘e5 ♗xb5 9 ♕xd8+ ♔xd8 10 ♘xf7+ is significantly weaker; after the further continuation 10...♔e8 11 ♘xh8 g6 12 h4 ♗g7 13 h5 gxh5 14 ♖xh5 ♗xh8 15 ♖xh7 ♗f6 White has no advantage.

7...♔xd8 8 ♘e5 ♔e8 *(D)*

Giving up a pawn by 8...♖g8 9 ♘xf7+ ♔e8 10 ♘g5 is also cheerless for Black, but now White wins by force.

For training purposes, I would recommend that you first try to work out the remainder for yourself.



9 ♗b5+ ♗d7

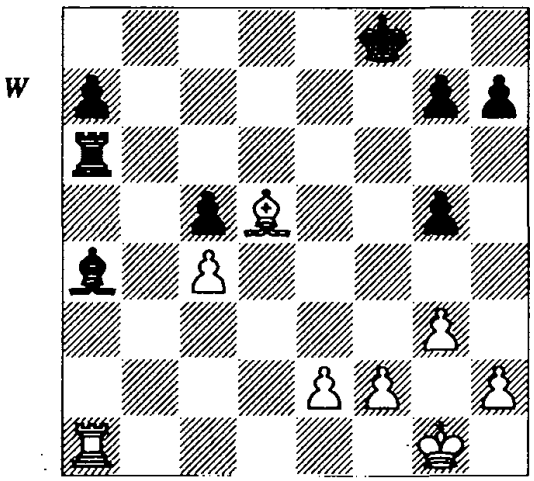
No better is 9...♘d7 10 ♗c6 ♖b8 11 ♗f4 ♖b7 12 0-0-0 ♖c7 13 ♗xd7+ ♖xd7 14 ♘xd7 ♗xd7 15 ♗b8 winning.

10 ♘xd7 ♘xd7 11 ♗f4! e5

11...a6 12 ♗c6 ♖c8 13 ♗b7 is also hopeless for Black.

12 0-0-0 f6 13 ♗xd7+ 1-0

This series of examples shows that applying the term 'revolutionary' to tactical blows is fully justified. Now we shall look at an example which gives rise to several theoretical and practical questions, and leads nicely on to the next chapter:



Euwe – Alekhine
World Ch match (game 20), Amsterdam 1935

This position looks highly favourable for White. Certainly, the opponent has doubled pawns on the kingside, which may prove a significant factor in the endgame. White already has a passed e-pawn, which is ready to advance at any moment, whereas the advance of the opponent's passed pawn is still a long way off. White's bishop also occupies a strong square, but the biggest strength of White's position is the pin on the a-file, which could result in one white rook tying down both enemy pieces. With so few pieces on the board, this could prove decisive.

However, there is also a significant 'but' in all this: all of these logical conclusions hold water only if one looks at the position from a static viewpoint. If one pays attention to its only dynamic element, namely Black's threat to play ...♗b5, then one is immediately given pause for thought, because this move (note that it is in fact a small tactical blow – this is important in the context of the theoretical issue we are concerned with) could significantly improve Black's position. For example, after a characteristic variation such as 30 f3 ♗b5! 31 ♖b1 (exchanging rooks obviously does not help White; in this case, it is significant that White's bishop must defend the c4-pawn and itself risks becoming little more than a 'big pawn'; in addition, Black's outside passed pawn can become dangerous) 31...♗d7 32 ♖b8+ ♔e7 33 ♖g8

♔f6 34 ♖f8+ ♔e5 35 ♖f7 ♗e6 36 ♖xg7 ♗xd5 37 ♖xg5+ ♔d4, with good chances of saving the game. The conclusion is that White would do well to prevent the black bishop from leaving to a4. But can he do so?

30 ♖a2!

Now after 30...♗b5 31 cxb5 the white rook is defended.

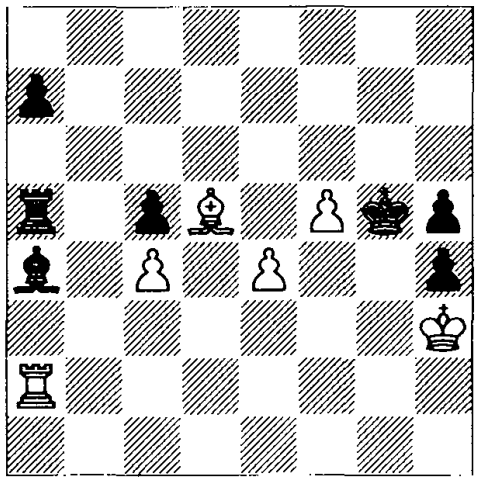
30...♔e7

As a consequence of White's strong 30th move, Black's position is now difficult, and even the more stubborn 30...g4!? leads after 31 h3! gxh3 (if 31...h5 32 hxg4 hxg4 33 e4! ♔e7 34 e5 White has a significant advantage) 32 f4 h5 33 e4 g6 34 ♔h2 ♔g7 35 e5 ♔f8 36 e6 to a large advantage for White.

31 f4! gxf4 32 gxf4 ♔f6

Black is in a bad way after both 32...♔d6 33 e4 ♔c7 34 ♔f2 ♔b6 35 ♖b2+ ♔a5 36 ♖b7 and 32...♖g6+ 33 ♔f2 ♗d7 34 ♖xa7, but now Euwe finishes the game off confidently.

33 e4 g5 34 f5! h5 35 h4! gxh4 36 ♔h2 ♔g5 37 ♔h3 ♖a5 *(D)*



38 ♗b7!

This means of realizing the advantage is both stronger and more logical than 38 ♗c6 ♗xc6 39 ♖xa5 ♗xe4 40 ♖xc5 ♗xf5+ 41 ♔g2 ♔f6 42 ♖a5 ♗g4 43 ♖xa7 ♔e5 44 ♔f2 ♔d6 45 ♔e3 ♔c5, when it is not clear how White wins.

38...♔f6 39 ♗d5 ♔g5 40 ♗b7

As the time-control approaches, it is often useful for the stronger side to repeat moves (only not three times!), so as to defer important decisions until he can consider them in more detail.

40...♔f6 41 ♗c8!

The sealed move. Black is helpless (e.g., 41...♔g5 42 e5).

1-0

I have already written at some length about this last fragment, but I think it is essential to add one or two additional observations which are important for our theme.

Firstly, the key to this position, White's 30th move, was a tactical blow. But in this case, the blow was not something which arose by accident, but allowed the stronger side to fulfil an important positional task. In other words, it helped White to realize the strategic line of his play. This is fully in accordance with our characterization of tactics as the instrument by which one solves concrete problems arising from the pursuit of strategic aims. We shall discuss this important theme in more detail later.

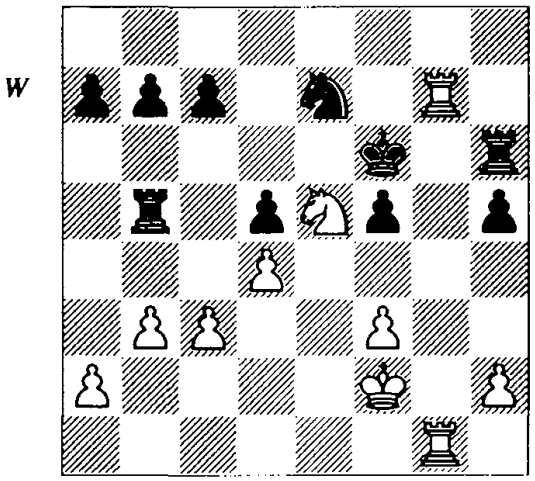
The second important factor in the ending just examined is the fact that White's celebrated 30th move appears at first sight somewhat hard to understand. I have already said above that it is a tactical blow, but it is not associated with any obvious sacrifice or other blow. So why have I so dignified it?

The reason is not that it prevents the opponent's tactical blow – such prevention can often be achieved by perfectly ordinary means. The point lies in the manner in which this has been achieved – the rook goes to a square where it turns out to be defended only in certain specific circumstances, as a counterblow to the opponent's blow. And such a phenomenon fully accords with what we have previously described as revolutionary.

This last discussion is important not only in itself, and not only in respect of a single tactical blow, but also because tactical blows are an essential part of combinations.

Now, having looked in some detail at the question of tactical blows and their place and significance in chess, we are fully ready to look at the subject of combinations. But first, let us return to the definition of this important concept. There are some well-known critical observations on what we have already said is Botvinnik's quite successful definition. The

main element of these criticisms is the fact that some combinations do not involve a sacrifice. Let us look first at two classic examples which authoritative writers have cited as combinations which do not involve a sacrifice, and see what we think about this issue.



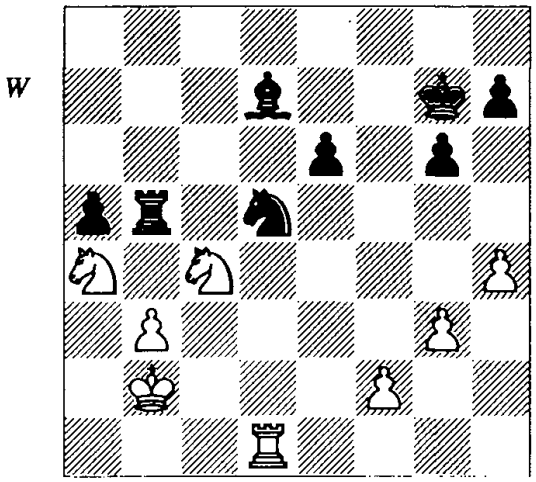
Steinitz – Neumann
Dundee 1867

Sveshnikov writes "Here there follows a simple but attractive combination."

31 a4! ♖a5 32 b4 ♖a6 33 ♘d7+ ♔e6 34 ♘c5+ 1-0

The interesting thing here is that White does not sacrifice anything, but himself takes material. However, if one approaches the question from a strictly formal point of view, then there is a sacrifice here, albeit hidden. Thus, strictly speaking, Black could have captured 31...♖xb3, although this loses immediately to 32 ♘d7+ ♔e6 33 ♘c5+. In the same way, there was a possible capture on a4 on the following move. However, if one looks at the position more closely, one sees that White could have effected the same manoeuvre as in the game, but without even allowing the formal possibility of a sacrifice! He could have started with a check on d7, followed by a check on c5, and only then advanced the pawn to a4. In addition, White could at the second move have won without a 'sacrifice': 32 ♘d7+ ♔e6 33 ♘c5+ (I should point out that there is also another simple winning line with 33 ♖e1+ ♔xd7 34 ♖exe7+) 33...♔f6 34 b4. What should we say about this? The very same moves, played in a different order, lead to the same result. And what would be the consequences, if we accept the Botvinnik formula uncritically: does the presence of the hidden sacrifice in one case make the whole thing into a combination, while its absence in the other sequence means that it no longer qualifies for this honourable title? Elementary common sense rebels against such absurd formalism in our beloved chess, even if we accept it all the time in everyday life!

But let us defer drawing our final conclusions to a little later, first looking at a very well-known fragment, which has close similarities with the preceding game:



Capablanca – Yates
New York 1924

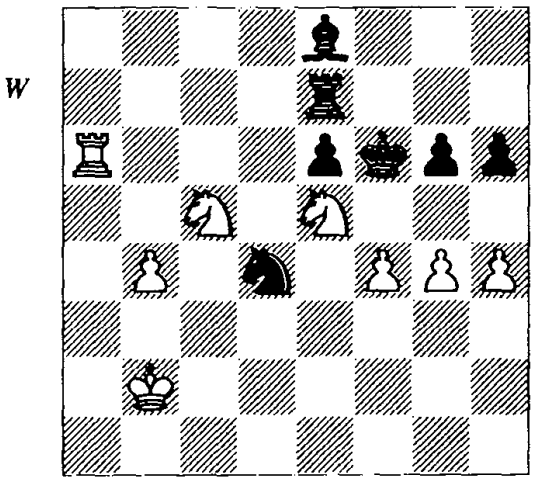
The events from move 40 to 44 are regarded by several well-known players as being a combination:

40 ♘c3 ♖c5 41 ♘e4 ♖b5 42 ♘ed6 ♖c5 43 ♘b7 ♖c7 44 ♘bxa5

As a result, White has won a pawn, while retaining all the advantages of his position, and he went on to win the game in typical and instructive fashion. The rest of the game is given with only very brief annotations, so as not to deflect us from our main theme:

44...♗b5 45 ♘d6 ♗d7 46 ♘ac4 ♖a7 47 ♘e4 h6 48 f4 ♗e8 49 ♘e5 ♖a8 50 ♖c1 ♗f7 51 ♖c6 ♗g8 52 ♘c5 ♖e8 53 ♖a6 ♖e7 54 ♔a3 ♗f7 55 b4 ♘c7 56 ♖c6 ♘b5+ 57 ♔b2! ♘d4 58 ♖a6 ♗e8 59 g4! ♔f6 *(D)*

59...h5 60 g5 ♘f5 61 ♖xe6 is also hopeless for Black.



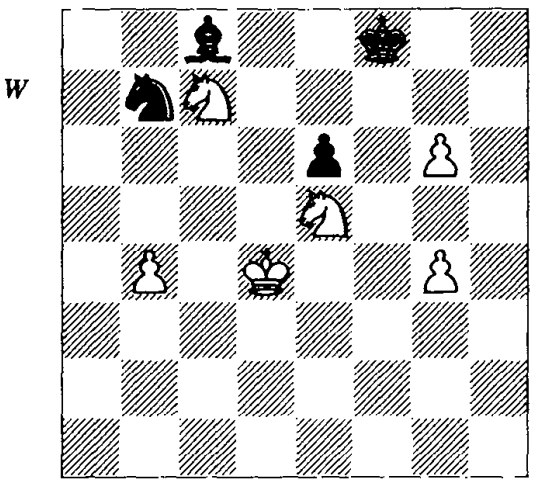
60 ♘e4+ ♔g7 61 ♘d6 ♗b5 62 ♖a5 ♗f1 63 ♖a8! g5

In order to avoid the variation 63...♘e2 64 ♘e8+ ♔h7 65 ♘f6+ ♔g7 66 g5.

64 fxg5 hxg5 65 hxg5 ♗g2 66 ♖e8! ♖c7

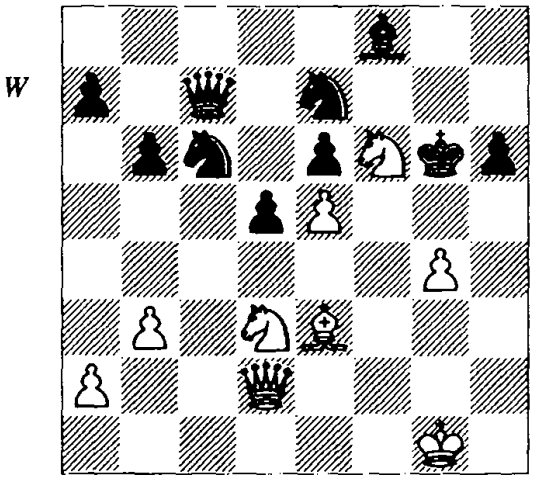
As Alekhine shows, 66...♖xe8 67 ♘xe8+ ♔f8 loses to 68 g6!.

67 ♖d8 ♘c6 68 ♘e8+ ♔f8 69 ♘xc7+ ♘xd8 70 ♔c3 ♗b7 71 ♔d4 ♗c8 72 g6 ♘b7 *(D)*



73 ♘e8! ♘d8 74 b5 ♔g8 75 g5! ♔f8 76 g7+ ♔g8 77 g6 1-0

In this case, there is not even a hint of a sacrifice by White, yet Kotov and Bondarevsky call the sequence from the 40th to the 44th moves a combination! On what basis did these venerable players and trainers define it thus? For the moment, we shall again defer the answer to this and will look at a modern example on the same theme.



Rublevsky – Sadvakasov
Poikovsky 2005

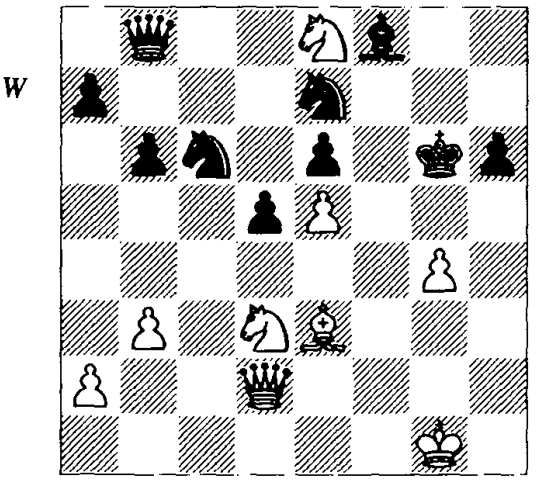
Strategically, the situation is clear – White must attack the poorly defended enemy king, and such operations always require accuracy. There is no room for approximations in such situations!

36 ♘e8!

A strong introductory move. From this square, the knight controls three important points: d6, f6 and g7; the remaining play develops by force.

36...♕b8 *(D)*

In the event of 36...♕d8, the play would be similar. Now follows an important manoeuvre with the white queen, after which Black is completely defenceless.



37 ♕h2! ♔f7

37...♔h7 38 ♘f6+ is also hopeless for Black.

38 ♘d6+ ♔g8 39 ♕h5 ♗g7

White also wins very quickly after 39...♘d8 40 ♗xh6.

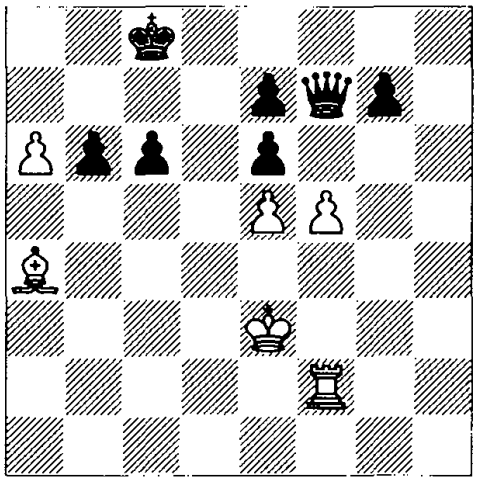
40 ♕f7+ ♔h8 41 ♘e8 ♗xe5 42 ♗xh6 1-0

So, what we have seen is that after his excellent 36th and 37th moves, White developed a decisive attack. But why have I included this example as one of tactics? Surely one cannot consider the possible variation 37...♕xe8 38 ♕h5+ as the sacrifice obligatory for a combination? Of course not. But it is all the same a tactical blow! I would emphasize this in respect of White's 37th move. This is definitely revolutionary, because it sharply changes the direction of White's pieces and gives him a decisive advantage.

The three examples we have just considered enable us to answer the question of whether they are combinations, or if the absence of sacrifices prevents us from so calling them. I do not see how one can call them combinations if one accepts the Botvinnik definition, but I believe that one can do so on the basis of my own formulation. The whole point is that both definitions require that the operation carried out should aim to bring some benefit to the perpetrator (here I would emphasize another small point – I say 'aim to bring some benefit...'; this is better than saying 'bring some benefit', because there are also combinations which are incorrect, but they are still combinations) and this element is present in all the examples here. In addition, both definitions require that events develop in a forcing manner, which is also the case here.

But there is one important difference. In Botvinnik's definition, a sacrifice is obligatory, whereas I consider that all that is needed is a tactical blow (a revolution). And as we have already explained, a sacrifice is not essential! All that is needed is what people in my native Odessa used to call 'something special', and something special is present in all of these examples. What is this something? Remember: in two cases, the stronger side achieved its aim by means of a double attack, one of the most thematic tactical blows. And in another case it was enough sharply to change the direction of events. It follows from this that all of the above examples fall within the definition of combinations, and I feel that my proposed definition meets all objections and can be considered an accurate formulation of the concept of a combination in chess.

In order to confirm our views of this problem, I suggest that we look at two more examples, and at the same time, conduct a small exercise in self-confirmation.



White to play and win

L. Kubbel

3rd Prize, *64*, 1927

Botvinnik wrote more than once that in studies, there are no positional judgements. This assertion should be understood to mean that if one approaches the initial position of a study not as a puzzle, but simply analyses it like a game position, it is impossible to predict the course of events on the basis purely of positional considerations. In studies, everything depends on the accurate calculation of variations. That is the case here. White's significantly weaker force achieves a remarkable degree of harmony in almost miraculous fashion.

1 a7! ♔b7 2 ♖a2! ♔xa7

Other replies also lose: 2...♕e8 3 ♗xc6+ +–; 2...b5 3 ♗xb5 +–.

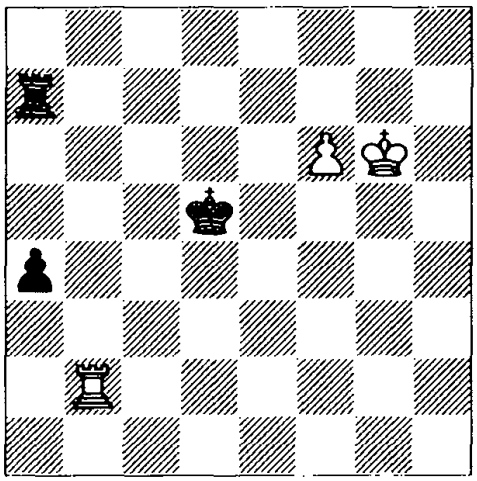
3 fxe6! ♕g8

The queen has no good square. For example, 3...♕f5 4 ♗c2+ or 3...♕f1 4 ♗b5+.

4 ♗xc6+ ♔b8 5 ♖a8+

And now, a question: which of White's first three moves can be called tactical blows? The answer is the second. With this move, the rook sets up an ambush and creates an effective co-operation with White's forces, based on geometrical motifs.

The following example shows a similar idea to the last.



Konstantinopolsky – Fridman
Lvov 1940

In this ending from a tournament game, events unfold more like a study.

1 ♖c2!

White cuts the black king off from its own passed pawn. A draw results from 1 f7? ♖xf7 2 ♔xf7 ♔c4.

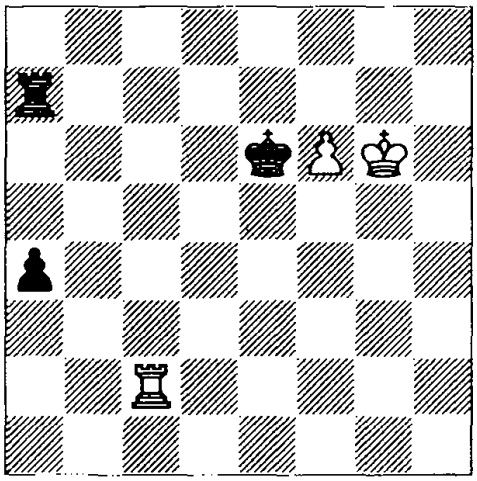
1...♔e6 *(D)*

1...a3 2 f7 a2 3 f8♕ a1♕ 4 ♕c5+ also loses for Black, but the strange-looking manoeuvre 1...♖a6!? 2 ♔g7 ♖a7+ 3 f7 ♔e6 creates more difficulties for White, who must find 4 ♖f2! ♔d5 5 ♖f4! a3 6 ♔g8 a2 7 f8♕ a1♕ 8 ♕d8+.

But even after the text-move there is only one way to win. The following fail: 2 f7? ♖xf7 3 ♖e2+ ♔d5 4 ♔xf7 ♔c4 =; 2 ♖c6+ ♔d5 3 ♖c1 ♔e6!; or 2 ♖f2 ♔d5! 3 f7? ♖xf7 4 ♔xf7 and Black holds: 4...♔c4 5 ♔e6 ♔b3 6 ♔d5 a3 7 ♖f3+ ♔b2 8 ♔c4 a2 9 ♖f2+ ♔a3!.

2 ♖c3!! a3

In reply to 2...♖a8 3 f7 ♖f8, White wins by 4 ♖c6+ ♔e7 (4...♔d5 5 ♖a6 is the same) 5 ♖a6.



3 f7

3 ♖e3+ ♔d5 4 f7 a2 5 f8♕ a1♕ 6 ♕f5+ wins, while avoiding the tricky (but winning) ending of ♕ vs ♖.

3...♖xf7

3...a2 4 f8♕ a1♕ 5 ♕f6+ ♔d5 6 ♕c6+ leads to mate, while 3...♖a8 4 ♖xa3 results in ♕ vs ♖.

4 ♖e3+ ♔d5 5 ♔xf7 a2 6 ♖a3 1-0

Again, I would invite you to answer the question: which of White's moves should be considered to be a tactical blow? Again, the answer is the second. And again for the same reason: the move sets up an indirect attack on the black pawns, winning a decisive tempo in the thematic main variation which must be classed as a revolution.

Tactics in Practice

Now, having devoted considerable effort to the theoretical basis of the question, it is time to show how a player's life can be complicated by missing favourable tactical possibilities.

Botvinnik – Larsen
Palma de Mallorca 1967

1 c4 ♘f6 2 ♘f3 e6 3 g3 d5 4 ♗g2 ♗e7 5 0-0 0-0 6 b3 c5 7 ♗b2 ♘c6 8 e3 b6 9 ♘c3 ♗b7 10 d3 ♖c8 11 ♖c1 ♖c7 12 ♕e2 ♖d7 13 ♖fd1 ♖e8

Larsen commits a small inaccuracy. Botvinnik considers 13...♕a8 intending ...♖fd8 to be better.

14 cxd5 ♘xd5 15 ♘xd5 ♖xd5 16 d4! ♕a8?!

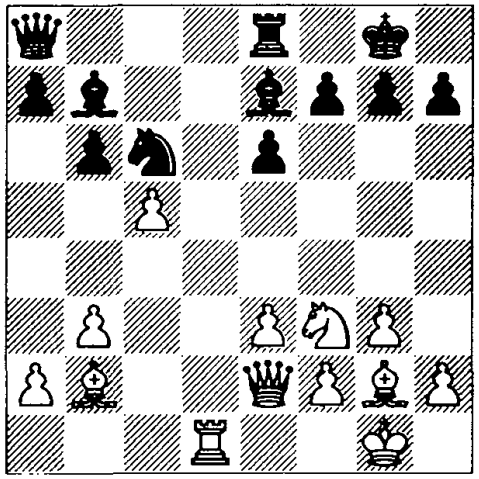
Another inaccuracy, but this time more serious. In Botvinnik's opinion, 16...♖d7 was essential.

17 dxc5! ♖xd1+

Exchanging rooks on c5 is the same.

18 ♖xd1 *(D)*

B



18...♗xc5?

After two inaccuracies, leading to increasing difficulties for Black, he now commits the decisive mistake. It was essential to play 18...bxc5. Although then White would have a clear and lasting advantage, there would still be much play ahead.

19 ♘g5!

With this obvious jump, White begins to attack the undefended black king with all of his pieces. The game should now end fairly quickly.

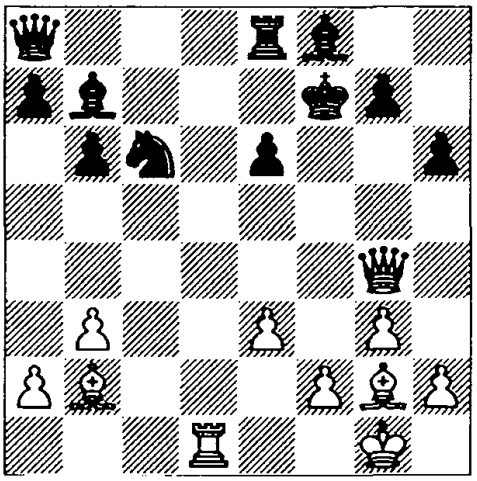
19...h6 20 ♘e4?!

However, White begins move after move to miss chances to end the game with a direct attack. This is the first chance. White could win with the obvious blow 20 ♘xf7!: 20...♔xf7 21 ♕g4! ♗f8 *(D)* (Black is quickly mated after 21...e5? 22 ♗d5+, and he also loses in the event of 21...♘d4 22 exd4 ♗xg2 23 dxc5).

Now he wins by force with 22 ♗e4! ♖d8 (22...♘e7 loses to 23 ♕f3+; White mates after 22...♘a5 23 ♖d7+ ♖e7 24 ♕g6+ ♔g8 25 ♕h7+ ♔f7 26 ♗g6#) 23 ♕g6+ ♔g8 24 ♕xe6+ ♔h8 25 ♕xh6+, mating.

There can be no doubt that Botvinnik considered the capture on f7, but evidently failed to calculate the variations correctly. As a result, he

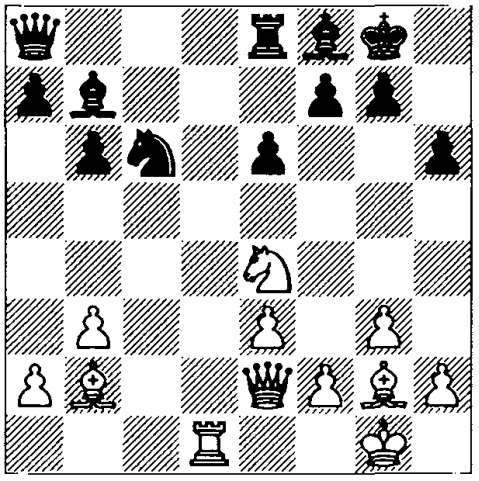
W



dragged the game out and made life much more difficult for himself. Now, instead of just having to calculate forcing variations, he also has to consider non-forcing positional lines. In other words, to jump forward a little, the calculation only of forcing variations enables the player to concentrate his attention on only a relatively narrow area, which eases his task. We shall have significantly more to say about this later.

20...♗f8 *(D)*

W



21 ♖d7?!

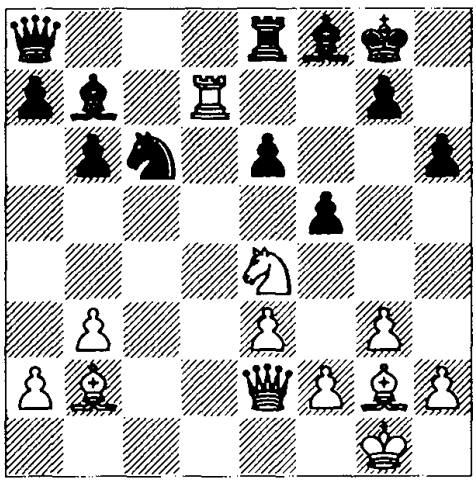
Once again White commits an error in a position rich in tactics, i.e. in a situation which demands calculation. As an addition to what was said above, one can say that having missed one possibility to decide the game by a tactical blow, if another one arises (which it does here, because too many black pieces remain out of play), it is usually more complicated and therefore more

difficult for the player to see. Thus, here there was another forcing chance, starting with 21 ♘f6+! gxf6 22 ♕g4+ ♔h7 and now White has a choice. The line pointed out by Botvinnik in his notes is 23 ♗e4+ f5 24 ♗xf5+ exf5 25 ♕xf5+ ♔g8 and now he analyses only the incorrect 26 ♕f6?, when 26...♘e5! 27 ♗xe5 ♖xe5 gives Black the advantage. This is why he refrained from the knight sacrifice, but 26 ♕g4+! ♔h7 27 ♖d7! forces mate; e.g., 27...♘e5 28 ♖xf7+ ♘xf7 29 ♕f5+ or 27...♘e7 28 ♖xe7 ♖xe7 29 ♕f5+ ♔g8 30 ♕f6 ♔h7 31 g4!. In addition, and by no means insignificantly, White also had a simpler path to victory in 23 ♖d7! ♖e7 24 ♗e4+, etc., while a move later 24 ♖d7! ♘e7 (24...♖e7 25 ♗xf5+ exf5 26 ♕xf5+ ♔g8 27 ♕f6) 25 ♖xe7 ♖xe7 26 ♗xf5+, etc., is another way to win.

21...f5? *(D)*

Botvinnik did not consider his 21st move to be inaccurate, but instead of this mistaken reply which again allows White a forced win, Black could and should have played 21...e5. In this case, White retains an undoubted advantage, but converting it would take a lot of time and effort. Such is the usual cost of missing one's chances.

W

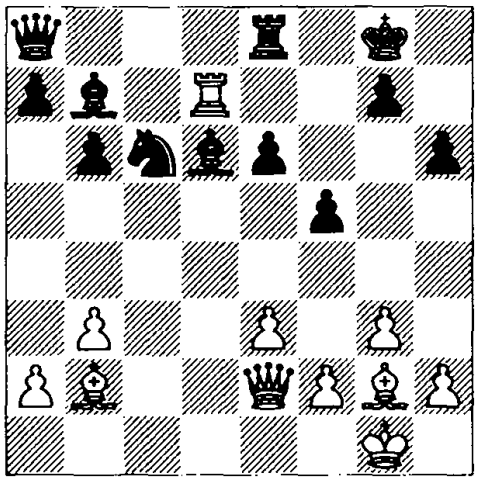


22 ♘d6!

But now the choice in this sharp position of a non-forcing continuation proves correct, although only slowly. Weaker was 22 ♘f6+!? gxf6 23 ♕h5 ♖e7 24 ♕g6+ ♖g7 (worse is 24...♗g7 25 ♗xc6 ♖xd7 26 ♗xd7 ♗h1 27 ♗xe6+ ♔h8 28 f3! winning) 25 ♖xg7+ ♗xg7 26 ♗xc6 ♗xc6 27 ♗xf6 ♕f8 28 ♗xg7 with an advantage which would still take a considerable amount to realize. But even so, yet again a forced win was possible! Botvinnik said that during the game he considered the variation 22 ♕h5! ♖e7 23 ♖xe7 ♘xe7 and even found the blow 24 ♘d6! ♗xg2 (24...g6 25 ♕h4) 25 ♕f7+ ♔h7 (25...♔h8 26 ♘e8 +—), but with time-trouble already approaching, he missed the simple line 26 ♗xg7! ♗xg7 27 ♘e8 ♕xe8 28 ♕xe8 winning.

22...♗xd6 *(D)*

W



23 ♖xd6?

But this oversight puts paid once and for all to any chances of White winning the game with a direct attack. It is very interesting to read Botvinnik's annotations on this moment (incidentally, all of Botvinnik's notes referred to here are from the book *Analytical and critical works 1957-1970*, Fizkultura i Sport, 1986). In connection with his 23rd move, he writes: "A pragmatic decision, preferring in time-trouble a positional win, rather than tactical complications." Despite all my respect for Botvinnik as both a player and an annotator, this comment shocks me. Certainly, even after the text-move, White retains a lasting and indisputable advantage, but hidden within his comments is a veiled contempt for the tactical element of chess, which could seriously mislead many thousands of chess-players, who hope to learn from one of the greatest authorities of all time. On no account should one scorn tactics or calculation! Such scorn is almost always punished. Botvinnik was very lucky in this game that Larsen missed

several chances to save the game. The win could have been achieved by the piece sacrifice 23 ♖xg7+! ♔f8 and now Botvinnik writes that with insufficient time, he could only see the line 24 ♕h5 ♖e7 25 ♖g6 ♘d8!, which appeared unfavourable to him. But if one continues the calculation a little further, it turns out that White has a forced win by means of 26 ♗f6! ♖h7 (26...♗xg2 27 ♖xh6 ♘f7 28 ♖h7! ♔e8 {only move} 29 ♗xe7 +–) 27 ♗xd8 ♗xg2 (27...♕xd8 28 ♗xb7 +–) 28 ♖f6+ ♔g8 29 ♕e8+ ♔g7 30 ♖g6#. This variation is complicated, and not only for a time-trouble situation, but he also missed another, simpler, win by 24 ♖h7!, when Black can resign. Admittedly, Larsen answered White's mistake with one of his own:

23...♘d4?

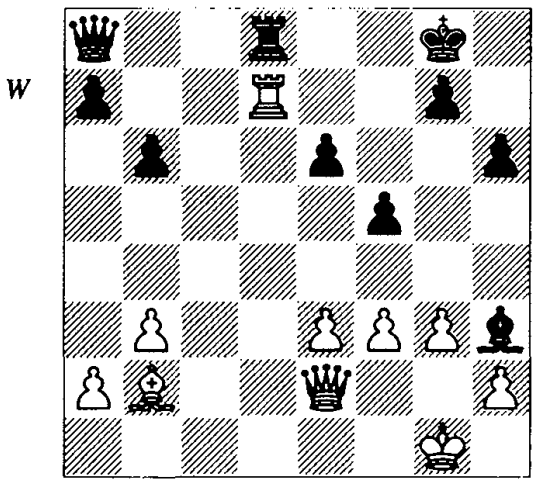
In a way, this can be regarded as two mistakes, one tactical and one positional. We shall deal with the former in a moment, but the latter is obvious – in the middlegame, the opposite-coloured bishops only help White. Instead, by playing 23...♕c8!? 24 ♕d2 ♘b8, he could have reached a position where a win for White is far from guaranteed.

24 ♖xd4 ♗xg2 25 ♖d7 ♗h3

On 25...♗h1 the reply 26 f4! gives White a winning position, as shown by Botvinnik.

26 f3 ♖d8 *(D)*

26...e5 loses immediately: 27 ♕c4+ ♔h8 28 ♕f7 ♖g8 29 ♗xe5.



27 ♖xg7+

Time-trouble and tiredness lead White to make a poor practical decision: he wins a pawn, but gives Black the d-file. Botvinnik explains that in the obvious variation 27 ♕d1(!) ♖xd7 28 ♕xd7 ♕f8 he missed 29 ♕xa7! (not 29 ♕xe6+? ♕f7), when White wins easily: he advances his queenside pawns as far as possible and then exchanges queens on g7.

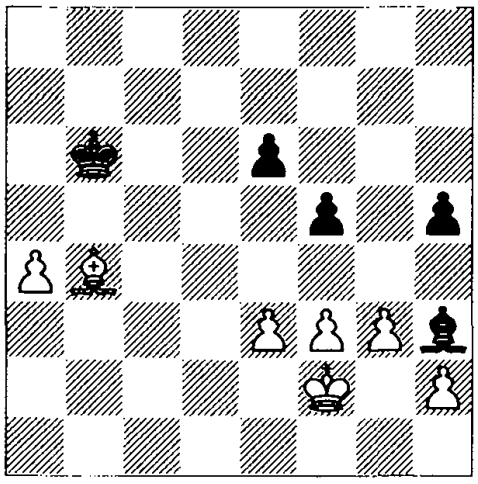
27...♔f8 28 ♖h7 ♕d5 29 ♔f2 ♕d1 30 ♖h8+?

Here White needed to calculate accurately and bravely. 30 ♗c3! intends to win the h3-bishop with ♖xh6 if the queens are exchanged, while after 30...♕h1 31 ♖h8+ ♔e7 32 ♗b4+, White wins the rook and Black has no mate.

30...♔f7 31 ♖xd8 ♕xd8 32 ♕c2 ♕d5 33 ♕c7+ ♔e8 34 ♕b8+ ♔d7?

34...♕d8! gives Black good chances of saving the game. Now events develop by force.

35 ♕xa7+ ♔c8 36 ♕a6+ ♔c7 37 ♕c4+ ♕xc4 38 bxc4 ♔c6 39 ♗d4 h5 40 a4 ♔c7 41 c5 bxc5 42 ♗xc5 ♔c6 43 ♗b4 ♔b6 *(D)*



44 g4!

This move was pointed out by Smyslov during adjournment analysis.

44...hxg4 45 ♔g3 e5

This loses immediately, but waiting would not have saved the game. In this case, Botvinnik showed the winning plan: 45...♔c6 46 fxg4 fxg4 47 e4 ♔b6 48 e5 ♔c6 49 ♔f4 ♔b6 50 ♔g5 ♔c6 51 ♗e1 ♔d5 52 ♗g3 ♔c5 53 ♔f6 and wins.

46 e4! fxe4

46...f4+ 47 ♔h4 ♔c6 48 ♗c3 is also hopeless for Black.

47 fxg4 1-0

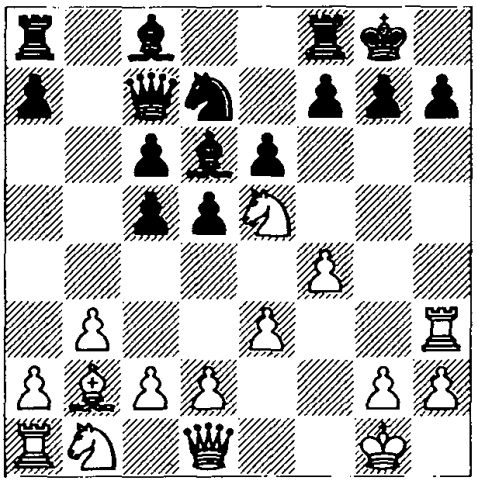
This game shows very well that when a player misses a chance to decide the game by a tactical blow, he complicates his task considerably and may well place the win in doubt.

The following rather simpler example demonstrates the benefits to a player whose tactics and calculation come together.

Plachetka – Zinn
Dečin 1974

1 ♘f3 c5 2 b3 ♘c6 3 ♗b2 ♘f6 4 e3 d5 5 ♗b5 e6 6 ♘e5 ♕c7 7 0-0 ♗d6 8 ♗xc6+ bxc6 9 f4 0-0 10 ♖f3 ♘d7 11 ♖h3 *(D)*

B



This position is known to theory.

11...g6?

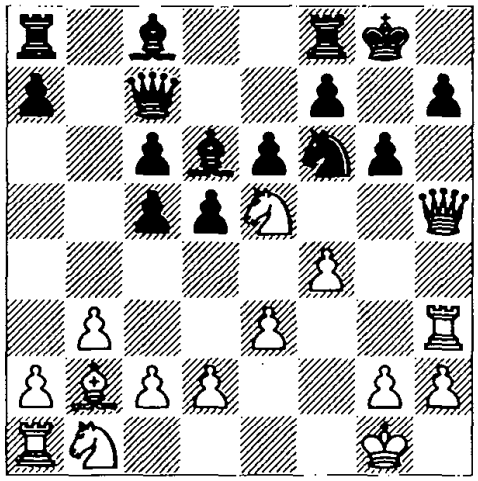
And it is also known that this move is a serious mistake. Taking the pawn is also bad: 11...♘xe5 12 fxe5 ♗xe5 13 ♕h5 and White is better. But 11...f6! is strong here. Then the piece sacrifice is inadequate: 12 ♕h5?! fxe5 13 ♕xh7+ ♔f7 14 ♖g3 ♔e8 15 ♖xg7 ♗a6 16 ♘a3 exf4 17 exf4 ♔d8 and White had insufficient compensation in Rogers-Bacrot, Cap d'Agde rpd 1998. Now things turn round completely.

12 ♕h5! ♘f6 *(D)*

The queen cannot be taken: 12...gxh5 13 ♖g3+ ♔h8 14 ♘xf7#.

With the text-move (12...♘f6), we have reached the key position. Poor calculation and missing tactical possibilities can spoil any position. This game's predecessor, Bellon-Pfleger, Olot 1972, ended in a draw in 39 moves after 13

W



♕h6? d4 14 ♘g4 ♘h5 15 ♖xh5 f5 16 ♖g5 fxg4, etc. But the apparently better retreat 13 ♕h4?! leaves White no more than a small advantage, and some counterplay for the opponent, after the counter-blow 13...d4!; e.g., 14 exd4 (14 ♕xf6?? ♗e7) 14...♘h5 15 g4 ♗e7 16 ♕f2 ♘g7. Therefore, White needs to find the following simple but effective combinative blow:

13 ♘g4!!

This is clearly the best of the three possible continuations in this position.

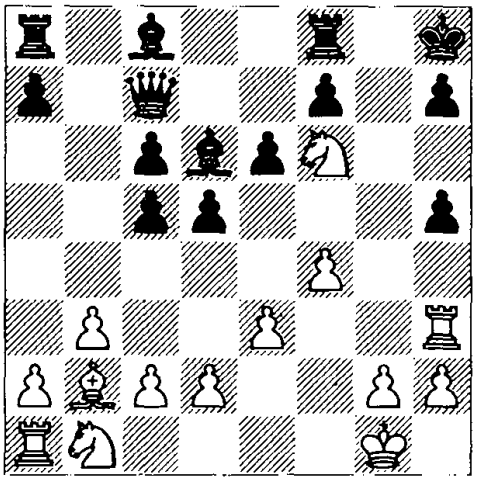
13...gxh5

Not 13...♘xh5 14 ♘h6#.

14 ♘xf6+ ♔h8 *(D)*

If 14...♔g7 White wins with 15 ♘e8++! ♔h6 16 ♗g7+ ♔g6 17 ♖g3+ ♔f5 18 ♖g5+ ♔e4 19 ♘c3#.

W



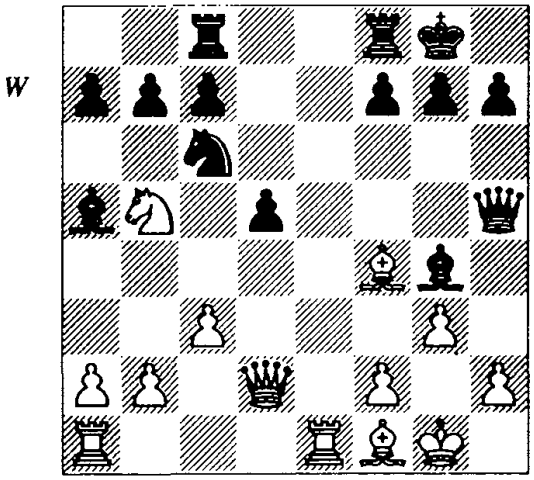
15 ♖xh5! h6

And this time, on 15...♔g7 there again follows 16 ♘e8++!.

16 ♘xd5+ 1-0

Black did not fancy playing on three pawns down.

In the next example, tactics enable White to escape the consequences of a poorly-played opening.



Yukhtman – Palatnik
Odessa Ch 1966

Black has both an extra pawn and the advantage in the centre. If events develop normally, White faces a long and thankless task. His chances therefore depend on utilizing the short-term dynamic features of the position – a slight and temporary lack of coordination among Black's forces, visible only to a sharp tactical eye. Even one move's delay will lose the chance. Therefore, White lands his blow immediately.

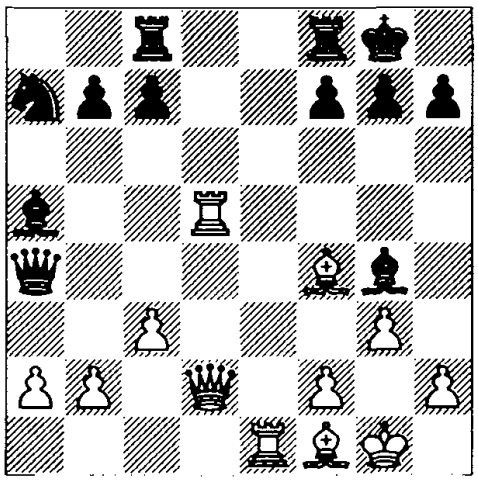
17 ♘xa7!

This is not only a good practical chance to trip up the opponent in the complications, but is also objectively necessary, even if the consequences are not clear.

17...♘xa7 18 ♖e5 ♕g6?

And, sure enough, Black trips up, going for the two birds in the bush rather than the one in the hand. It would also be a mistake to play 18...♗f5?. After 19 ♕xd5 g6 20 ♕xa5 ♘c6 21 ♖xf5 ♘xa5 22 ♖xh5 White would have an undoubted advantage in the ending. The correct answer is 18...f5! with the continuation 19 ♕xd5+ ♔h8 20 ♕xa5 ♘c6 21 ♕c5 ♘xe5 22 ♗xe5 and Black's chances are superior, although White has good chances of saving the game. Now a forcing variation follows:

19 ♖g5 ♕e6 20 ♖e1 ♕d7 21 ♖xd5 ♕a4 *(D)*



It appears that the variation ends with Black having an extra piece and no particular problems (22 b3 ♕a3). One therefore suspects that the young player of the black pieces stopped his calculations here. We shall discuss this problem in more detail in the chapter devoted to calculation of variations.

But in the game, the experienced master Yukhtman played:

22 ♖g5!

It turns out that Black's assessment of the position was totally wrong and White now obtains a large advantage. Those readers familiar with Alekhine-Sterk, Budapest 1921 (see my book *How to Play Dynamic Chess*; Gambit, 2004, page 52) will recognize the similarity between the two games.

We should note that 22 ♗h6! also wins, because after 22...gxh6 23 ♕xh6! ♕c6 24 ♖g5+ ♕g6 25 ♗d3, White gains a 'whole' queen.

22...♖cd8

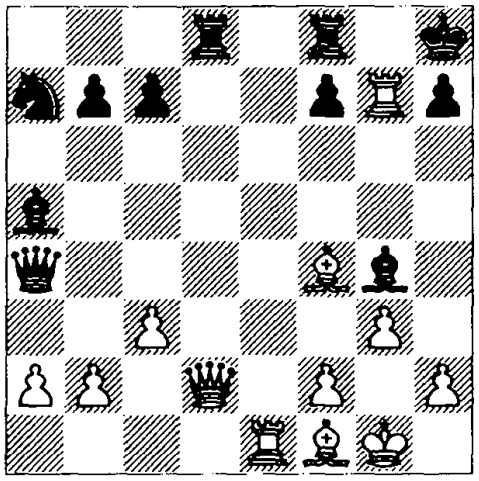
22...♗e6 also loses: 23 ♗e5 (the sacrifice 23 ♖xg7+ is also successful: 23...♔xg7 24 ♗h6+! ♔h8 25 ♕g5 ♕g4 26 ♕f6+ ♔g8 27 ♖e5 forcing mate) 23...g6 (23...f6 24 ♖xg7+! ♔h8 25 ♗d3 +–) 24 ♗f6! and the black king is defenceless. White wins in thematic fashion in the event of 22...♗f3 23 b3 ♕a3 24 ♖xg7+! ♔xg7 25 ♗h6+ ♔h8 26 ♕d4+! f6 27 ♕d7 ♖g8 28 ♗d3, while 22...♖fd8 loses in a similar

way to the game continuation: 23 ♖xg7+! ♔h8 (23...♔f8 24 ♗h6) 24 ♗e5 mating.

23 ♖xg7+! ♔h8 *(D)*

In reply to 23...♔xg7, White wins by 24 ♗h6+!.

W



Now there follows the final brush stroke on the canvas:

24 ♗e5! f6

24...♖xd2 25 ♖xf7+ ♔g8 26 ♖g7+ ♔h8 27 ♖xg4+.

25 ♕h6 1-0

Even today, I can still picture this game, the faces of the players and the surrounding scene. How long ago it all was! Nowadays almost forgotten, Yakob Yukhtman was a player of colossal talent, sadly never fully realized. He had superb technique and remarkable combinative vision.

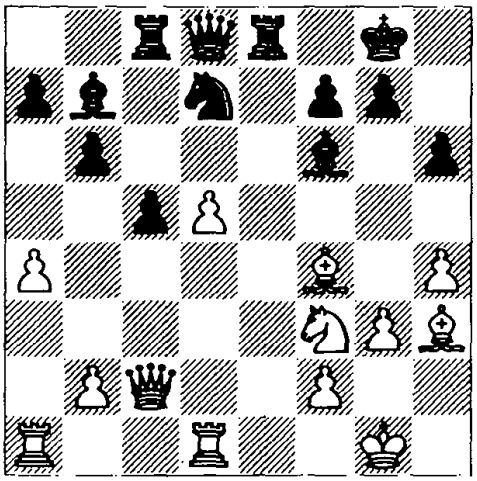
Blow for Blow

In most cases, it is the attacker who lands tactical blows, but it also happens occasionally that the defender finds a tactical resource in reply.

In the following classic example, Black manages to neutralize his opponent's pressure by means of a tactical blow.

At first glance, one can see that White's pieces are more actively placed and his passed d-pawn may potentially become extremely dangerous. Black has yet to find a way of bringing into play his queen and the c8-rook, which currently have limited freedom of action. In

B



Smyslov – Geller

Candidates match (game 6), Moscow 1965

view of all this, it is not surprising that his next move should have been the first he examined. The problem is to calculate the resulting complications accurately.

18...c4! 19 ♘d4!

White also needs to show great accuracy in order to sustain and develop his initiative. The truth of the matter is that when it comes to the static features of the position, he stands worse in some respects, notably in terms of the pawn-structure. As a result, losing the initiative would be likely to result in unpleasant consequences for White. Thus, in the event of 19 ♕f5 ♘f8! 20 ♗e5 ♘h7! 21 ♖ac1 ♖c5 his activity has come to nothing, and his weaknesses will start to become significant.

With the text-move, White threatens to bring the knight to c6 or e6, where it would be terribly strong.

19...♗xd5!

The other means of the meeting the threat, 19...♗xd4 20 ♖xd4, leads to a position in which White has some trumps in the form of a central passed pawn and the bishop-pair. The line chosen by Geller is more convincing, because it is forcing and leads to complete clarity.

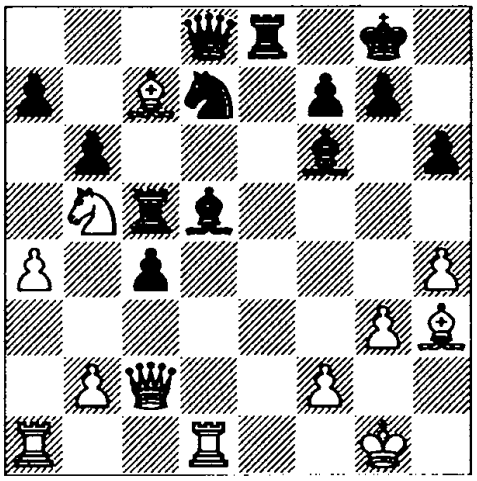
20 ♘b5

White's hand is forced, and he has no great choice. If 20 ♕f5?! ♘c5 21 ♕xc8 ♕xc8 22 ♗xc8 ♖xc8 Black has more than enough positional compensation for his minimal material loss.

20...♖c5 21 ♗c7! *(D)*

This continuation of the attack is also necessary. The variations 21 ♘c7? ♘e5 22 ♘xe8 ♘f3+ 23 ♔f1 ♕xe8 24 ♗e3 ♗e4 25 ♕e2 ♖c7 and 21 ♗e3? ♖xe3 22 fxe3 ♕b8 both end with a clear advantage for Black.

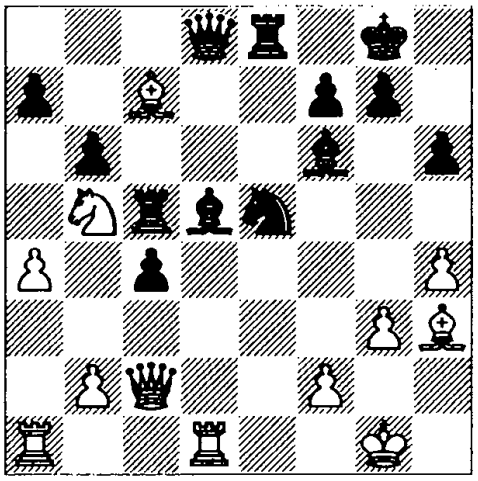
B



But now what is Black to do? He loses after 21...♖xc7? 22 ♖xd5 ♖b7 23 ♖ad1 ♖e7 24 ♕d2, and also stands badly in the variations 21...♕e7? 22 ♗d6 ♘e5 23 ♗xe7 ♘f3+ 24 ♔g2! (24 ♔f1 ♘h2+ 25 ♔e2? ♖xe7+ 26 ♔d2 ♗e4 wins for Black) 24...♘e1+ 25 ♔f1 ♘xc2 26 ♗xc5 and 21...♕a8?! 22 ♗xd7 ♖e7 23 ♗f5 ♖cxc7 24 ♘xc7 ♖xc7 25 ♖e1, when he has insufficient compensation.

21...♘e5! *(D)*

W



This is the counterblow that Geller had to see at least as early as his 19th move, and probably a move earlier.

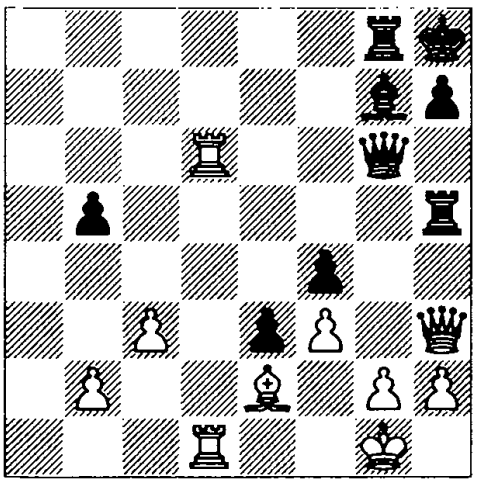
22 ♗xd8

White has to accept reality. After 22 ♗g2? ♕d7 23 ♗xe5 ♗xe5 24 ♕d2 ♖d8 Black has a decisive advantage.

22...♘f3+ 23 ♔f1 ♘h2+ ½-½

The following example continues the theme. In it, the struggle proves to be short, but very bloodthirsty!

B



Leko – Kramnik
Linares 2004

Despite his pawn deficit, it is obvious that Black's chances are superior thanks to his pawn duo f4-e3, and also the white king's vulnerable position. Even the most straightforward variation 33...♖xh3 34 ♖xg6 hxg6 35 gxh3 ♖b8 gives Black some advantage, but in such a position one wants more. The variation 33...♕xd6? 34 ♕xh5 does not suffice for this, since in this case the advantage swings over to White. There only remains the move played in the game:

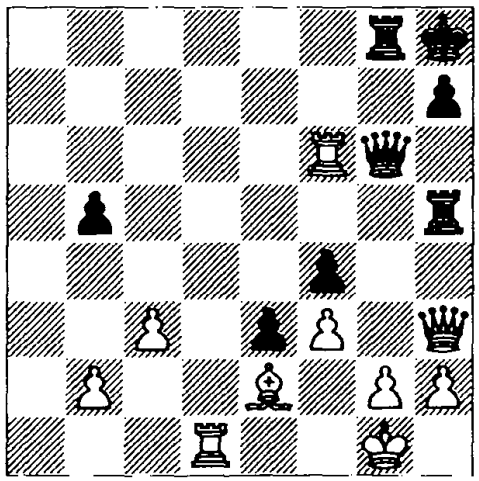
33...♗f6! 34 ♖xf6 *(D)*

34 ♕g4 loses to 34...♖g5.

But what did Kramnik intend now? No convincing answer to this question is evident at first sight.

Certainly after 34...♕g7? 35 ♖d7 ♖xh3 36 ♖xg7 ♔xg7 37 ♖xf4 ♖h5 38 ♖e4 it is White who has the advantage. After 34...♖xh3 35 ♖xg6 ♖xg6 36 ♖d8+! ♔g7 37 ♖d7+ ♔h8 (worse is 37...♔h6 38 ♖d4 ♖h4 39 g3 ♔g7 40 ♔g2 with advantage for White, while after 37...♔f8 38 ♖d4 ♖h4 39 g3 the game is level)

B



38 ♖d8+ ♔g7 39 ♖d7+ the game ends in a draw.

Instead, there followed a stunning move:

34...♕c2!!

It turns out that 35 ♕d7 loses immediately to 35...♖xg2+ 36 ♔xg2 ♕xe2+.

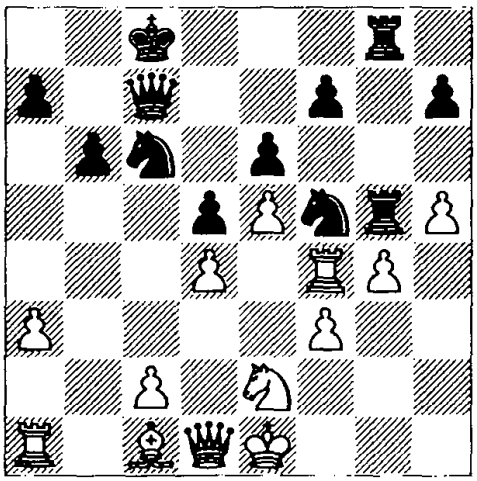
35 ♕xh5 ♕xe2 36 g4

After 36 ♕xh7+ ♔xh7 37 ♖d7+, 37...♖g7 wins. The continuation 36 g3 ♕xd1+ 37 ♔g2 e2 also fails to save White.

36...♕f2+ 0-1

The following fragment is similar to the previous one:

B



Sashikiran – S. Williams
Gibraltar Masters, Caleta 2005

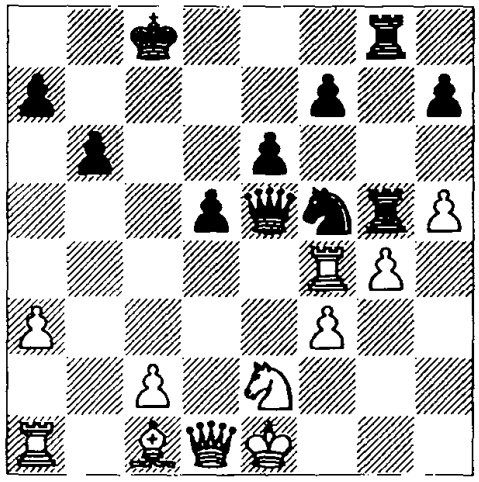
The position is messy, but clearly Black needs to act resolutely and try to open the game, since otherwise White will easily realize his material and space advantage. Black can only open the game by sacrificing material, and so it is hardly surprising that there followed:

19...♘xe5!

There is no alternative, as the consequences of the other freeing sacrifice are unfavourable for Black: 19...♘fxd4 20 ♖xd4 ♘xd4 21 ♕xd4.

20 dxe5 ♕xe5 *(D)*

W

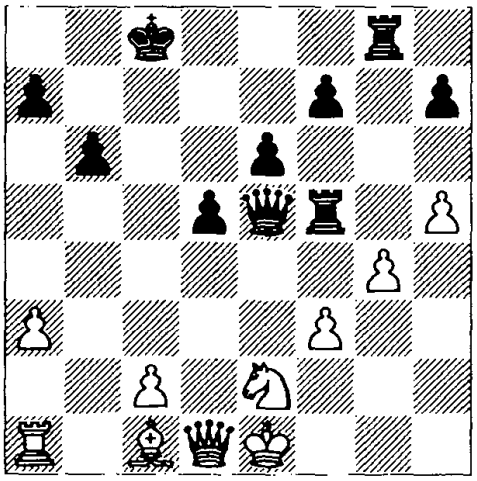


Now White must make an important decision. His choice is difficult, as shown by such variations as 21 ♗d2 ♖xh5! 22 gxh5 ♖g1+ 23 ♔f2 ♖xd1 and 21 ♖a4 ♖xh5!. In both cases, White's chances have to be considered better, but the opponent retains counterplay, and White's advantage in the initial diagram position is such that he should seek a more convincing continuation. And he duly found one:

21 ♖xf5! ♖xf5 *(D)*

21...exf5? is completely bad: 22 ♗xg5 ♖xg5 23 f4.

W



But what does White intend now?

22 ♕d4!!

The key to White's play. 22 ♗b2 ♕xb2 23 gxf5 is much weaker; then after 23...♕e5! an unclear position arises. Now the position clears and all Black's hopes are dispelled.

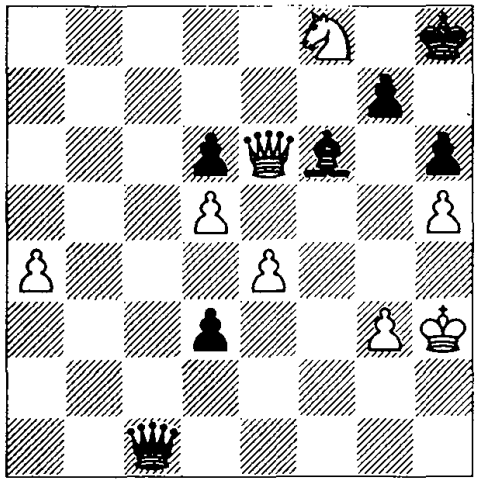
22...♕h2

Black also loses after the exchange of queens: 22...♕xd4 23 ♘xd4 ♖e5+ (23...♖f6 24 g5) 24 ♔f2 ♔d7 25 ♗f4.

23 gxf5 ♖g2 24 ♕d3 d4 25 ♕e4 exf5 26 ♕c6+ 1-0

In the following fascinating example, the defender finds a magnificent counterblow:

W



A. Kovačević – Avrukh
Olympiad, Calvia 2004

In this position, both sides have their pluses. Black has a powerful passed pawn and the white king is exposed to many checks. White, meanwhile, has chances to attack the black king. Admittedly, a direct assault does not bring White anything: 61 ♕f5 ♕h1+ 62 ♔g4 ♕d1+ 63 ♕f3 (not 63 ♔f4?? ♗g5+ −+) 63...♕c2 64 ♕f5 ♕d1+ 65 ♕f3 ♕c2 only leads to a draw. Therefore, he decides on a king march, hoping to include the king in the attack, and at the same time to shelter from checks within the enemy camp. This plan looks very tempting.

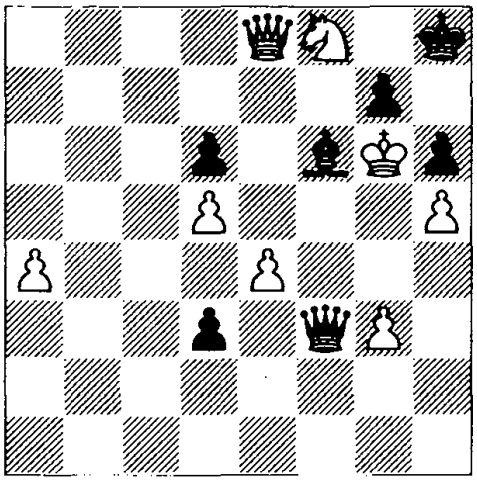
61 ♕e8 ♕h1+

Black has no choice.

62 ♔g4 ♕d1+ 63 ♔f5 ♕f3+ 64 ♔g6 *(D)*

White's plan has been fulfilled.

B

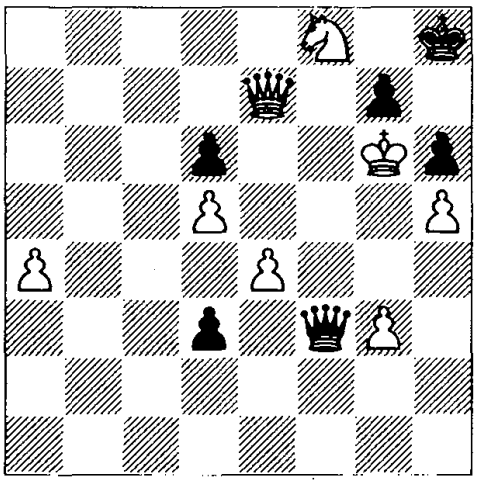


It appears that it is all over. After the obvious 64...♕g4+? 65 ♔f7 ♕xh5+ 66 ♘g6++ White mates. But now Black finds one of those miraculous resources for which we all love chess.

64...♗e7!! 65 ♕xe7 *(D)*

And now the improbable happens – it turns out that it is White who needs to save himself from the results of his own attack! Thus, the check now loses: 65 ♘e6+? ♗f8 66 ♕xf8+!? ♕xf8 67 ♘xf8 ♔g8! (the only way; 67...d2? is mistaken: 68 ♔f7 d1♕ 69 ♘g6+ ♔h7 70 ♘f8+ with a draw). It is more like some form of martial art than chess!

B



65...♕f6+?!

Black misses the chance to make the most of his super-move, and force his opponent to find the saving line after 65...♕xg3+. This would require accuracy from White, which is not easy after such a sudden turn of events. 66 ♔f7 ♕f3+ 67 ♔g6! (this is simpler than the retreat

to e8) 67...♕g4+ 68 ♔f7 ♕xh5+ 69 ♘g6+ ♔h7 70 ♕e6 d2 71 ♔f8 ♕f3+ 72 ♔e8 (attention is needed: 72 ♔e7?? ♕f6+ 73 ♕xf6 gxf6 74 ♔f7 h5 –+) 72...d1♕ 73 ♘f8+ ♔h8 74 ♘g6+ drawing.

66 ♕xf6 gxf6 67 ♔f7 d2 68 ♘g6+ ♔h7 69 ♘f8+ ½-½

And finally, to conclude this theme, an interesting game which shows that counterblows also sometimes meet with effective 'counter-counters'!

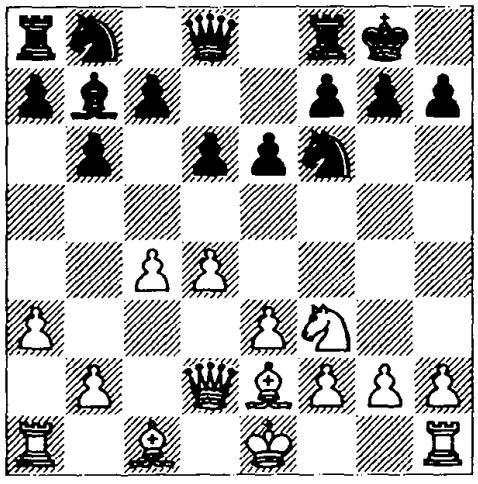
Ivanchuk – Moiseenko

Russian Clubs Ch, Sochi 2005

1 d4 ♘f6 2 c4 e6 3 ♘f3 ♗b4+ 4 ♘bd2 b6 5 a3 ♗xd2+ 6 ♕xd2 0-0 7 e3 ♗b7 8 ♗e2 d6 *(D)*

Here the continuations 8...a5!? 9 b3 d6 10 0-0 ♘bd7 11 ♗b2 ♕e7 and 8...d5!? 9 0-0 dxc4 10 ♗xc4 ♗d5 11 ♕e2 ♗xc4 12 ♕xc4 ♕d5!? 13 ♕xc7 ♘c6 with compensation (I.Sokolov-Zviagintsev, Kallithea ECC 2002) are both interesting.

W



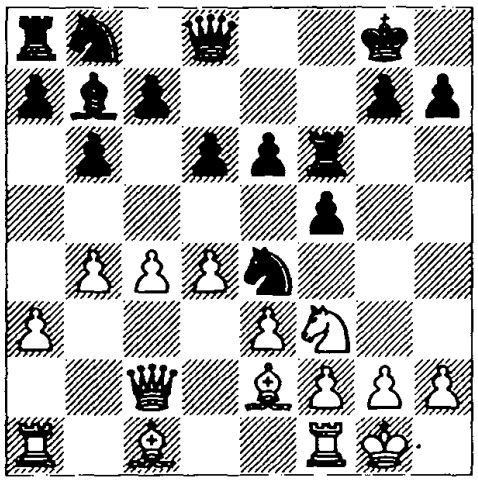
9 0-0 ♘e4 10 ♕c2 f5

The continuation of Shabalov-Ippolito, USA Ch (Seattle) 2003 was characteristic of how events usually develop in this type of position: 10...♘d7 11 b4 a5 12 ♗b2 ♘g5 13 ♘d2 f5 14 f3 ♕e7 15 c5 dxc5 16 dxc5 bxc5 17 bxa5 ♘f7 18 e4 with the better chances for White.

11 b4 ♖f6?! *(D)*

Although this transfer of the rook to an attacking post is typical of such positions, it proves bad in this concrete case. It was necessary to continue development by 11...♘d7.

W



12 d5!

Now White manages to achieve this typical central breakthrough in a very favourable form.

12...exd5

The point of White's play is that the usual reaction to White's advance, 12...e5, leads here to the loss of a pawn after 13 ♗d3 (13 ♘h4!? is also strong).

13 ♗b2 ♖g6 14 cxd5 ♘d7

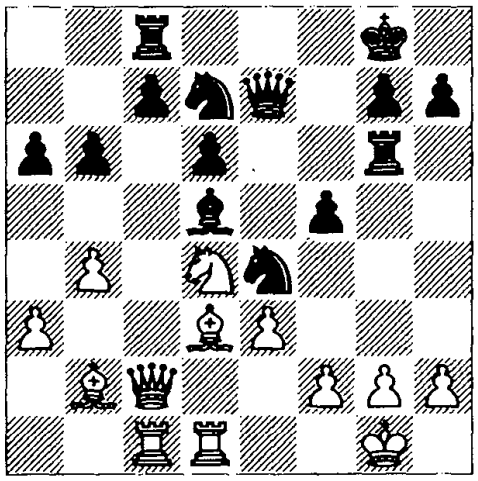
After 14...♗xd5 15 ♖fd1 both 15...♗b7 16 ♖ac1 c6 (16...c5 17 bxc5 bxc5? 18 ♕b3+ +–) 17 ♘e5! ♖h6 18 ♗c4+! d5 19 b5! and 15...♗e6 16 ♘d4 leave White with a strong initiative.

15 ♖ac1 ♖c8 16 ♖fd1 a6

White has seized a significant amount of extra space and completed the mobilization of his forces. It is now time to go over to the attack.

17 ♗d3! ♕e7 18 ♘d4 ♗xd5 *(D)*

W



19 ♗c4!

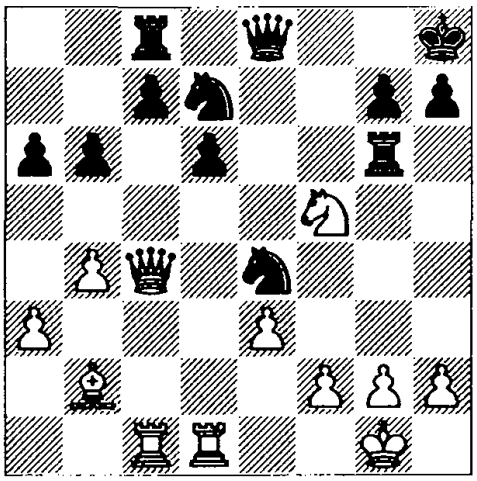
The light-squared bishop defends the numerous weaknesses in Black's camp, and its exchange therefore favours White. But note that Ivanchuk quite correctly refrains from the alternative method of effecting the exchange; after 19 ♗xa6 ♖f8 20 ♗c4 (20 ♕xc7?? ♘xf2 −+) 20...♗xc4 21 ♕xc4+ ♔h8 22 ♕xc7 ♕g5 23 g3 f4 a position arises which, although objectively favouring White, leads to considerable complications. The side which has an undoubted positional advantage has no need to muddy the waters. On the contrary, he should always strive for the maximum clarity in the position.

19...♗xc4

Correct strategy is always supported by tactics (we shall discuss this in more detail later). This is the case here, since after 19...♕f7 there is 20 ♘xf5! ♗xc4 21 ♕xe4 ♖e6 (21...♗e6 22 ♘xd6 +−) 22 ♕xc4 ♕xf5 23 ♖xd6! with a winning position.

20 ♕xc4+ ♔h8 21 ♘xf5 ♕e8 *(D)*

W



The only move.

22 ♕xa6!? ♖g5

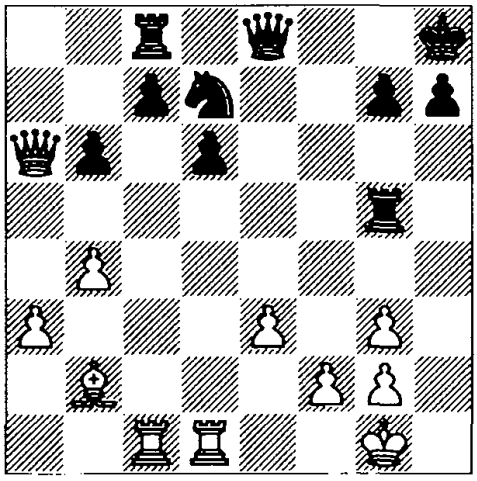
In the event of 22...♕f8 23 f3 ♘g5 (23...♘b8 24 ♕b7 +−) 24 e4 ♘e5 25 ♔h1 White has a winning advantage.

23 ♘g3

This move, although obvious from a strategic and technical standpoint, requires accurate calculation. It would be absurd for a human player, having a decisive advantage, to leave his pieces hanging with a move such as 23 ♖d5!?, even though it may be the preference of some computer programs. For a human player, the best way to realize an advantage is to choose what is *to him* the clearest and most convenient path to victory.

23...♘xg3 24 hxg3 *(D)*

B



24...♖xg3!

Black makes use of his last chance. But White has a refutation!

25 ♖xd6!

And not 25 fxg3? ♕xe3+ 26 ♔h2 ♕h6+ with perpetual check, while Black also has more chances of saving the game in the variation 25 ♕b7 ♖xe3!.

25...♖a8

Now he cannot take on e3: 25...♖xe3 26 fxe3 ♕xe3+ 27 ♔h1 ♖e8 28 ♖d3 +−.

But now how should White continue?

26 ♖e6!

Here is the counter-counterblow. Now White is completely winning.

26...♕g8 27 ♕b7 ♖g5 28 ♖xc7 ♖b8

Here, of course, Black could resign with a clear conscience, but maybe he was playing on his opponent's time-trouble.

29 ♕e4 ♕d8 30 ♖b7?

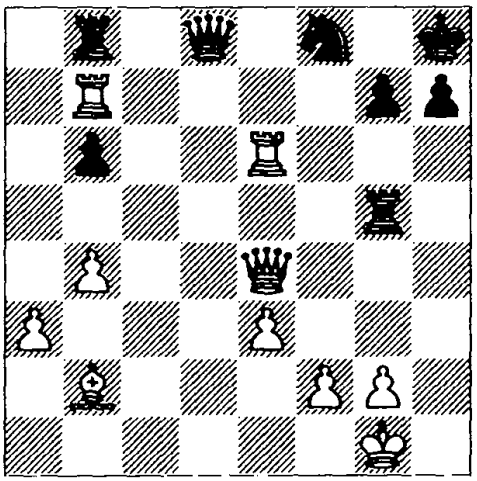
A bad mistake. The elementary 30 ♖c1 or 30 ♕c2 wins without any trouble.

30...♘f8! *(D)*

Suddenly Black seizes an excellent chance. Except that it was not really 'sudden', since Black had such an idea in mind when playing his 24th move.

31 ♖h6?

W



White misses his last chance to fight for the win. No doubt this was the result of time-trouble, combined with shock at the opponent's unexpected tactical resource. 31 ♖xb8? ♕d1+ 32 ♔h2 ♕h5+ 33 ♔g1 ♕d1+ leads to a draw, but White could retain the advantage only after 31 ♗d4! ♘xe6 (not 31...♖xb7? 32 ♖e8 +—) 32 ♖xb8 ♕xb8 33 ♕xe6. Admittedly, it is not clear how great his advantage is in this case.

31...♖xb7 32 ♕xb7 ♕d1+ 33 ♔h2 ♖h5+ 34 ♖xh5

34 ♔g3 ♖g5+ 35 ♔h2 ♖h5+ is also a draw.

34...♕xh5+ 35 ♔g3 ♕g5+ 36 ♔f3 ♕f5+ ½-½

After 37 ♔e2 ♕c2+ 38 ♔f3 ♕f5+ the game ends in repetition.

Logical Analysis

Having seen how strong players land tactical blows and unearth hidden combinative possibilities in their games, we can now move on to the main subject. The first topic should help the reader answer the most common question asked by any chess lover: how can I learn to do this myself? We must now consider what an amateur player should do, so that he can not only appreciate beautiful combinations and tactical blows in the games of strong players, but also develop the ability to find and use such blows in his own games. It is well-known that the main method of doing this is working with collections of combinations. In such collections, combinations are generally grouped by theme, that is by types of tactical blows, in the main those which start combinations, because as we already know very well, combinations can contain a whole series of tactical blows. This means that not all of the blows appearing in a given combination should be of the same type. But undoubtedly, the initial blow is often an especially important element, because it launches the process, and because the player needs to detect the presence of such a combinative motif in the position that is before him. By studying collections of combinations, a player becomes acquainted with the typical methods of operation in them, and, especially importantly, trains himself to detect such possibilities in a given position.

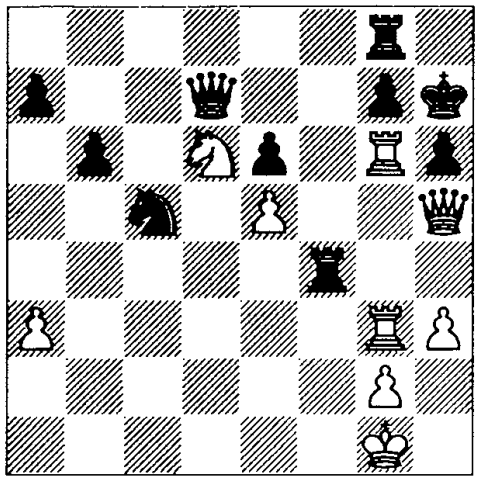
Not only do I have nothing against such a method of study, but I consider it extremely useful and, indeed, indispensable to every chess-player who wishes to improve his play. However, because I do not wish to repeat what has been done so often by others, and since I also believe that there are a number of other, very useful and interesting ideas to be explored, I am not offering the reader yet another collection of combinations by theme, and instead wish to approach the question from a slightly different angle.

I intend now to suggest to the reader another method of seeking the solutions in such positions – in particular, how to find combinations not on the basis of familiarity with something similar, but *by means of logical analysis of the actual situation on the board.*

The best way to explain what I mean is not by abstract words and formulae, but by means of concrete examples. As always, we shall start with simple situations, in which the reader will, as it were, be able to see the wood, without its being obscured by the trees.

In the diagram on the following page we have a position in which an experienced solver of combinations would easily be able to identify the typical tactical themes. We shall speak more about these later. But first, let us engage in a little philosophizing about when, where and how tactical blows are found. That is, we shall try to come up with a general method for solving such problems.

W



M. Hoffmann – Papp
Budapest 2004

Firstly, what should be the first step for a player of any strength, in trying to find the solution? The answer to this question is always the same: *he should begin with a general overview of the position (overall view).*

When doing this, care should be taken not to overlook anything, since in advance one cannot know which detail of the position will eventually turn out to be important. We shall now do this in detail with the present example, so as to show how such an overview should be carried out.

In our example, everything appears fairly simple, and there are not a large number of details in the position. In carrying out this process, it is important to stick to a particular order, since this disciplines one's thought-processes, and both simplifies and speeds up the process, thereby increasing the quality of one's work. Firstly, one should consider the material balance. In formal terms, Black has an extra pawn, but this currently has very little influence on the play. We shall therefore remember this factor, but shall for the time being put it to one side. Then one must consider the strong and weak points in each side's pawn-structure. Here we notice the quantitative and qualitative advantage Black enjoys on the queenside. On the kingside and in the centre, the pawn-structure is balanced and symmetrical. These are static factors, i.e. factors that change only slowly (for more on this theme, see my book *Lessons in Chess Strategy*; Gambit, 2003).

After these factors, we must then consider the dynamic features of the position, i.e. features that change rapidly. These include such things as the activity of the pieces, and the extent of their coordination (in respect of this factor, I recommend you to look at my book *How to Play Dynamic Chess*; Gambit, 2004). In this respect, the difference between the two sides is clear. White has a powerful group of major pieces on the kingside, and it is also obvious that these pieces work well together. All they need is some more scope for action. But at the moment, White is greatly hampered by the g7-pawn, although at the same time, this pawn is under the greatest degree of pressure. It must therefore be considered to be at one and the same time the most important and the weakest point in the black position, and it will therefore be the focus of the opponent's attention. White's knight is also well posted and ready to join in with his other pieces.

Black's forces are less well placed. They are also not terribly well coordinated, although they are already prepared (and this is very important) to start relieving the situation by means of the move 33...♘e4. From all that has been said, we can draw some conclusions: White's advantage consists of the coordination of his forces. Their main object of attack will be the g7-pawn, and then the black king which stands behind it. True, at first glance, it is not obvious how White will achieve this. However, it is clear that he must do so; otherwise all of his temporary advantages will come to nothing, and Black's extra pawn will eventually become a real factor. And thus, the principle which applies is one which is hitherto unknown in chess literature, although well known in practice, and which is the basis of all tactics. It is also well-known to anyone who lived part of their adult life in the former Soviet Union, and runs as follows – "if it doesn't work, but you really want it to, then it must work!"

Although this may seem at first glance to be a joke, it describes very well the essence of tactics in chess – *by means of the real strengths of a position, one can achieve things which at first glance appear impossible.* In the present position, this applies as follows: the preceding

analysis has shown that White needs to concentrate his strength against g7, and once he does this, the game will play itself:

33 ♘e8! ♔h8?

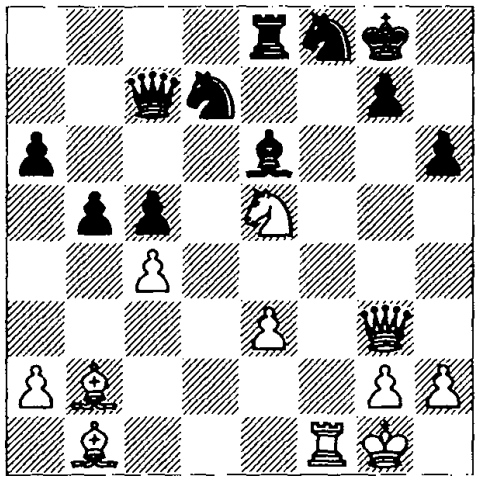
33...♖f7? also loses immediately, to 34 ♘f6+. 33...♖xe8 is more resilient but even then after 34 ♖xg7+ ♕xg7 35 ♖xg7+ ♔xg7 36 ♕xe8 ♖a4 37 h4! ♖xa3 38 h5 White should win without great difficulty. Events develop in similar fashion after 33...♕xe8 34 ♖xg7+.

34 ♘xg7 1-0

One should not be frightened by the apparent complexity of the process of overview and conclusions described above. With a little regular practice, you will be able to carry out the whole of this logical analysis within a few minutes.

So as to have some training in this effective and important method, we shall look at a number of other examples.

W



Keres – Spassky
Interzonal, Gothenburg 1955

This time too we shall try to describe in detail the process of assessing the position and drawing conclusions (which, together, is what I call the process of logical analysis), which is as follows:

a) Material is equal.

b) White has two bishops against his opponent's bishop and knight. We shall assess this factor a little later.

c) White has four pawn-islands, Black two. From a formalistic standpoint, one must prefer Black's pawn-structure, but formalism in chess is also relatively unproductive. For now, we shall defer judgement.

d) The question of piece activity and coordination is not difficult: the activity and purposefulness of White's formation is obvious. His rook occupies an important open file, the two bishops are unopposed and menacingly eye the rather exposed black king, and the queen is also aimed at the same side. White's centralized knight is also good, although it would be better still if it were not on the board, in which case mate would follow on g7!

This last comment also contains the truth about the pawn-structure. In such a sharp position, so susceptible to sudden change, the number of pawn-islands is of little importance. What matters is who is better able to exploit his opponent's weaknesses. The answer to this is clear: the side with the more active position. In this respect, the difference between the sides is considerable. And finally, all of White's forces are directed against the kingside. But most of all, the g7-square. Both White's bishop and queen are pointing at this square, and it is defended only by the black king. White's only problem is how to move his own knight off the long diagonal most effectively. If he tries sacrificing it, Black can just decline it, and after 30 ♘xd7 ♕xg3 White's dream would turn into a nightmare. The conclusion is that White has a clear advantage in terms of his piece activity and coordination, combined with the poorly-defended black king, but there is no obvious way to exploit this. Is this a logical conclusion? No, of course not! There is no doubt that there must be some solution to the problem, and we need to find it. Thus, again we remember the formulation given above: "If it doesn't work, but you really want it to, then it must work!". But now is the time to emphasize that this formula does not work solely on the basis of a player's will. You also need sound positional justification, be it in chess or in life generally. In this position, such justification exists, as we have already described. All that remains is to concentrate upon the opponent's principal weakness, which is also the main point at which our forces are directed, and lo and behold, the solution is found:

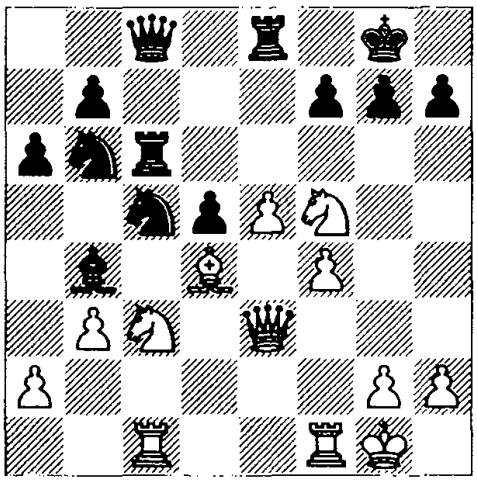
30 ♕xg7+! 1-0

Black resigned due to the variation 30...♔xg7 31 ♘xd7+ ♔g8 32 ♘f6+ ♔f7 33 ♘d5+ and 34 ♘xc7.

I have deliberately chosen a second example with an attack on g7. This enables us to compare the characteristics of the two methods of seeking the combinative solution. A player who often solves positions from a collection of combinations would quickly find the idea of the queen sacrifice on g7, because he would have seen many examples of similar sacrifices. Even a single previous example can help a player in finding the solution, by using association of ideas. This one example is already enough to underline the great benefit of constant training in this area.

But the method I suggest also works well, as we have seen. Its particular merit is that it is especially effective in original and complex situations, in which it is difficult or even impossible to discern standard motifs. Then the ability to conduct a logical analysis of the position is priceless. Consequently, the method is effective in different situations, and the ideal situation is to have both methods in one's arsenal.

W



Anand – Nisipeanu
Bundesliga 2004/5

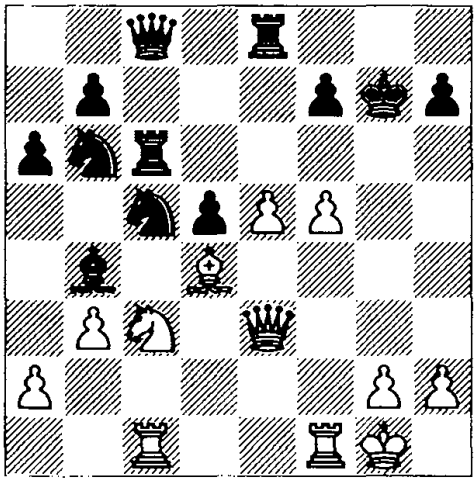
In this position, it is clear that White must proceed energetically, so as not to squander his initiative, and that his chances lie on the kingside, since all of Black's minor pieces are cut off on the other flank, and Black has significant weaknesses on the kingside dark squares. As a result of our overview, we know where White should attack and that he needs to act decisively. Such thoughts lead naturally on to considering the sacrifice:

22 ♘xg7!

This is undoubtedly a tactical blow. But how forced are the consequences? And one more question: can one consider this a thematic tactical blow? In other words, how typical is the idea on which this sacrifice is based? We shall not hurry to answer these questions for the moment, but will look at how the game continued:

22...♔xg7 23 f5 *(D)*

B



White's last move, and the position it brings about, is the key to his sacrifice. Despite his extra piece, Black suffers from having too few pieces in the sector of the board that matters. The white pawn on f5 deprives the black pieces of the important squares e6 and g6, and thus prevents them from getting over to the kingside. Meanwhile, the white pieces cannot be stopped from closing in on the black king.

23...h6

There is no real defence to be found. The tries 23...♖g8 24 e6+ ♔f8 25 ♕h6+ ♔e8 26 ♕xh7 and 23...♗xc3 24 ♖xc3 ♘e4 25 e6+ f6 26 ♖xc6 both lose.

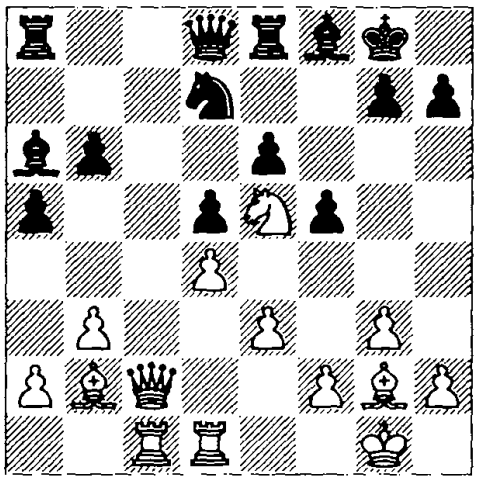
24 e6+ ♔h7 25 ♕e5 ♖g8 26 exf7 ♖g5 27 ♕e7! 1-0

White won the game in effective fashion, but some real questions remain. The main one is this: all of the variations following the sacrifice logically fit together in White's favour, but can one call it all a combination? I believe the

answer should be in the affirmative, because White's threats develop rapidly and no defence can be seen for Black in any of the variations. Is this a typical combination? Would it be easy to find with the help of a knowledge of typical combinative ideas? Only to a limited extent. What we have here is a combination without any clear combinative motif. It is more accurate to say that by means of the sacrifice, White obtained a very strong, constantly growing attack, rather than that he carried out a typical combination in itself. For our purposes, it is important to note that someone who was used only to solving combinations in a textbook would have difficulty in finding White's 22nd move, whereas logical analysis quickly points the player towards the correct idea.

And now let us look at another aspect of the topic under discussion in this section, and return to something that was said earlier: that in carrying out the general overview, it is important not to overlook any detail, because it is impossible to know in advance which details may prove important in the subsequent play. Although it may seem obvious, this postulate is extremely useful, as illustrated by the following example.

W



Ungureanu – Bellin
European Team Ch, Moscow 1977

White found a beautiful blow.

20 ♕xf5! ♘xe5

The queen cannot be taken: 20...exf5? 21 ♗xd5+ ♔h8 22 ♘f7+.

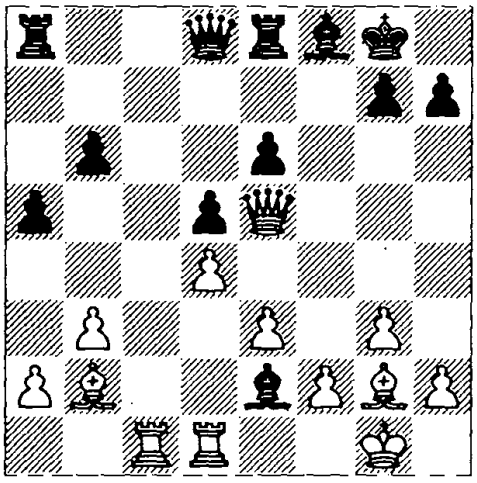
21 ♕xe5

Now it seems clear that by exploiting the weaknesses of the opponent's position and the poor placement of his pieces, White has carried out an effective and striking combination with an obvious and fully typical combinative motif, and this has won him an important pawn. One would think this was unarguable, but it turns out matters are not so straightforward:

21...♗e2 *(D)*

When initiating his combination, White had to pay careful attention to his opponent's counterplay.

W



22 ♗h3!

Only move! White had to foresee this crucial and essential move, which is the only way to justify the combination begun on move 20. After 22 ♖d2?? ♗d6 the queen is lost!

22...♔h8

Things also turn out well for White after 22...♗xd1 23 ♗xe6+ ♔h8 24 ♖xd1 a4 25 ♕xd5, with an undoubted advantage.

23 ♗xe6 ♗f3 24 ♕f5

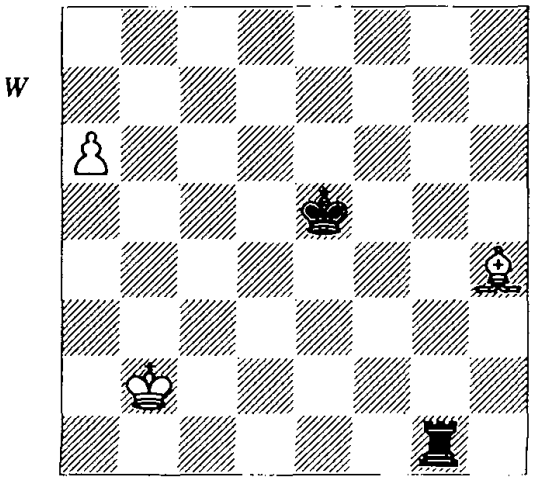
White has achieved a clear advantage, which he subsequently managed to realize, although not without some technical lapses (1-0, 41).

And now I would like to return to the starting position, but with one small modification – moving the white pawn from h2 to h3. Having seen the game continuation, it is easy to see the importance of this 'triviality': at move 22, White would no longer have the key move with his bishop, and the whole of his 'simple, typical and obvious' combination would be impossible!

This example is useful not only as an illustration of the importance of every detail and, as a result, of attentively studying the subtleties of the position in advance, but it will also prove worth remembering for the future. It will prove especially useful when we come to look at the connection between tactics and the calculation of variations, where there are many examples which could be given, but where I have limited myself to only one more.

Now we shall continue the subject we briefly interrupted, namely the development of one's combinative vision. In what follows, I shall frequently allude to typical combinative motifs, many examples of which can be found in any book of combinations, but as I have already said, we shall not study such motifs in detail in this book. However, I have no hesitation in recommending to anyone who wishes to improve their combinative vision that they acquire a good collection of combinations and practice solving a selection of these *every day*. I can assure you that 15 or even 10 minutes such work per day is adequate! This work will equip any player with the necessary combinative weaponry.

In our present work, we shall continue to study the subject by the less common but no less important method I suggest, and we shall look at some more examples of how to solve such positions by means of logical analysis.



White to play and win
H. Weenink
Tijdschrift v.d. KNSB, 1917

Before us we have a study. As required by the art form concerned, it has only one solution. It is also expected that the solution should contain some element of the unexpected. Utilizing the terminology we have developed earlier in this book, we can say that as a rule, the required element accords with what we have described as 'revolutionary', and it follows from this that a study without tactics is almost unthinkable and the solution almost always involves a combination. This is what happens in this example. The main factor in White's search for a combination is his passed pawn. It is also obvious that the pawn itself is not able to promote immediately, and can only be supported by the bishop. Only the rook can fight it, and only along the 8th rank. When all of these factors are summarised in the overview, then the idea leaps up like the genie from the bottle: the pawn advances to a7, and the bishop goes to b8, when White has achieved his result. The first step on this path is obvious:

1 a7

And now the play really begins:

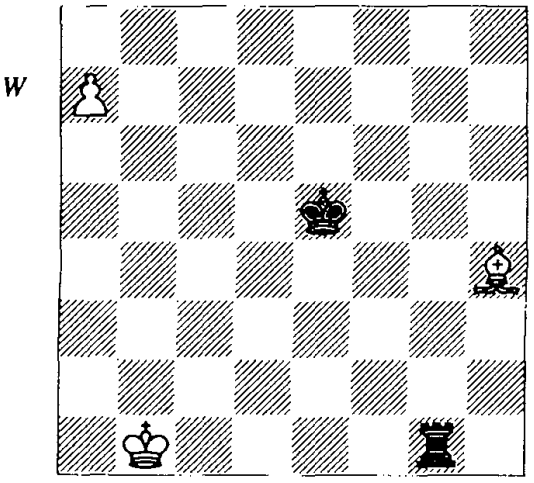
1...♖g2+!?

This is forced, as shown by the variation 1...♖g8 2 ♗g3+ ♔d4 3 ♗b8. In defending against his opponent's threats, Black tries to make the most of his rook's possibilities.

2 ♔b1

2 ♔b3? would be a mistake, because after 2...♖g8 the rook gets to a8, and there is no check with the bishop, because it would be taken with check!

2...♖g1+ *(D)*



But now what? The white king must not relinquish control of the squares a2 and b2, and it cannot go to the third rank. Therefore, one must resort to a process of elimination: if the normal moves do not work (3 ♔c2 ♖a1 =; 3 ♔a2 ♖g2+ 4 ♔a3 ♖g8 =), then one must try the 'abnormal' (in other words, revolutionary) ones!

3 ♗e1!!

Having played this move, we immediately think 'Hooray, it works!'. But it only works if the bishop is sacrificed on the e-file, because that is where the black king stands.

3...♖xe1+

A thematic variation arises after 3...♖g8 4 ♗g3+ ♔d4 5 ♗b8.

4 ♔b2 ♖e2+ 5 ♔b3! ♖e3+ 6 ♔b4! ♖e4+ 7 ♔b5!

The checks are exhausted, and White cannot be prevented from queening.

As we see, in simple positions, finding a tactical solution solely by means of logical analysis is an effective approach. This is therefore a valuable method, although one not often mentioned in chess literature. It is something we shall have cause to speak of again frequently, in the section devoted to the calculation of variations.

Although I have tried as far as possible to avoid detailed discussion of typical combinative ideas, I cannot avoid the subject altogether. I was convinced of this once again when I saw the game below, and was struck by the similarity of its critical moment with examples from several games of Paul Morphy.

Rublevsky – Zhang Zhong

Russia vs China match, Moscow 2004

1 e4 e5 2 ♘f3 ♘c6 3 d4

Sergei Rublevsky is a well-known specialist in the Scotch.

3...exd4 4 ♘xd4 ♘f6 5 ♘xc6 bxc6 6 e5 ♕e7 7 ♕e2 ♘d5 8 c4 ♘b6 9 ♘c3 a5 10 f4 ♗a6 11 b3 ♕e6 12 ♗b2 a4 13 0-0-0

A new idea. In a similar position in Rublevsky-Adams, Rethymnon ECC 2003, Rublevsky had castled kingside and put his queen on c2.

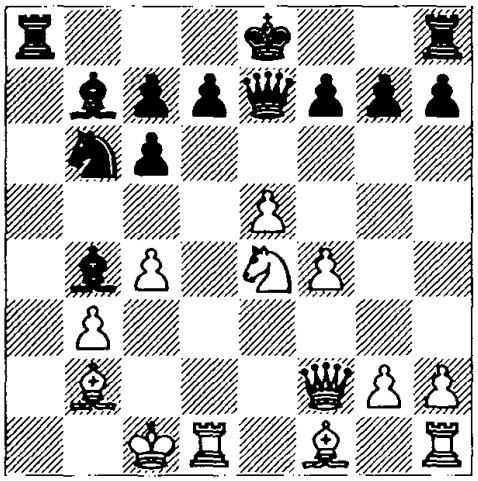
13...♗b4 14 ♘e4 axb3 15 axb3 ♗b7 16 ♕f2!?

Now the white queen is placed more actively.

16...♕e7!? *(D)*

The opponent is not fazed by White's threats. Mind you, he had little choice. After 16...♕h6 17 ♗d3 c5 problems remain for Black. Now White lands a tactical blow, but its consequences are not clear.

W



17 ♘d6+! cxd6 18 exd6!

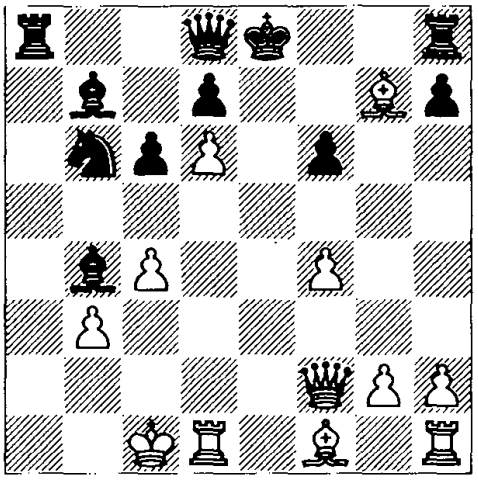
The point. Things would be bad for White after 18 ♕xb6? ♗c5 19 ♕xb7 0-0: 20 ♔b1 (worse is 20 exd6 ♕e3+ 21 ♔b1 ♖fb8 winning, or 20 ♗d4 ♗xd4! 21 ♖xd4 dxe5 22 ♖xd7 ♕a3+ and Black has a strong attack) 20...♖a7 with a clear advantage for Black.

18...♕d8

This reply is forced. 18...♗xd6 19 ♖e1 ♗xf4+ 20 ♔c2 and 18...♕f8 19 ♕xb6 are both hopeless for Black.

19 ♗xg7 f6! *(D)*

W



And this is again the only continuation.

20 ♗e2!?

White increases the tension. In the event of 20 ♗xh8?! ♖a1+ 21 ♔b2 (21 ♔c2?? ♖a2+) 21...♖xd1 22 ♕e2+ ♔f7 23 ♕xd1 ♔g8!? the chances are about level.

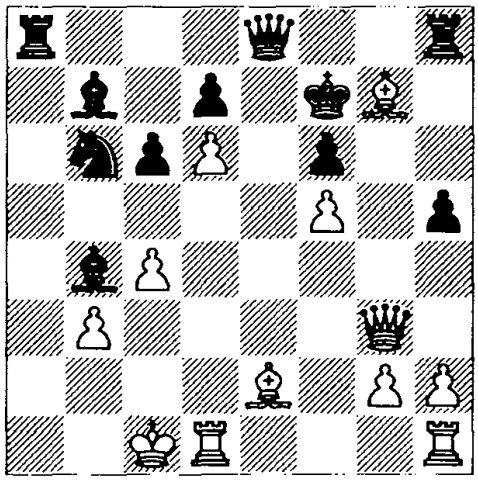
20...♔f7 21 ♕g3 h5?

Unexpectedly, Black commits a serious error. This move should lose by force. It was essential to play 21...♖a5. Then after 22 f5!? (22 ♖d5 ♖a1+ 23 ♔b2 ♗c3+! 24 ♕xc3 {but not 24 ♔xc3? ♘xd5+ 25 cxd5 ♕a5+ and Black wins} 24...cxd5 leads to an unclear position, in which Black appears to have reasonable chances) 22...♖xf5 23 ♖hf1 ♖g8 24 ♖xf5 ♖xg7 25 ♕h4! ♔g8 26 ♗f3 a position arises in which White's chances appear slightly better, but no more than that.

22 f5 ♕e8 *(D)*

Black must try to control the g6-square. This is the factor on which White's next, missed opportunity, should be based.

W



And now we come to the moment for which the game is being considered here. Rublevsky, a strong player and excellent tactician, loses his way.

23 ♗xh8?

He could decide the game immediately by 23 ♖he1!!, with the following variations:

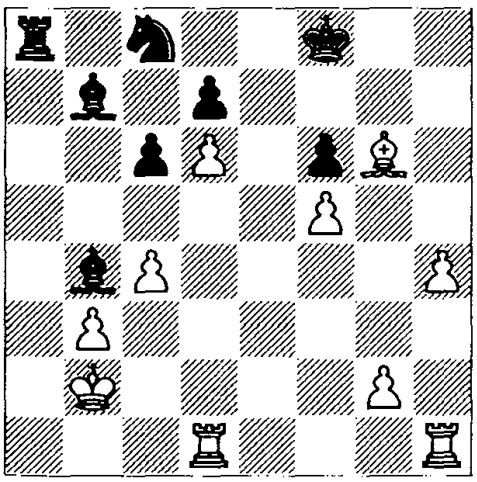
a) 23...♖a1+ 24 ♔b2 ♗xe1 (24...♕e5+ 25 ♕xe5 fxe5 26 ♗xh8 and 24...♖xd1 25 ♗xh5+! are also losing for Black) 25 ♕g6+ winning.

b) 23...♗xe1 24 ♖xe1 ♖a1+ 25 ♔d2! ♖a2+ (25...♖xe1 26 ♕g6+) 26 ♔d3!.

It is quite clear that in this attractive and unusual type of position, Black has no defence. The variations, as we have seen, are not terribly difficult. I do not think that the problem lay in the calculation of the variations, which is not a difficult task for a player of Rublevsky's class. In this case, I suspect that the difficulty was in finding the idea itself. In principle, it seems fairly easy to find it by logical analysis (see the note to Black's 22nd move), but there is the other, more common method, based on knowledge of typical combinative motifs, and developed by studying books of combinations and also of the games of masters. In the present case, it would be useful to have studied the games of Morphy, two examples from whose games I shall give below. But this game continued as follows:

23...♕xh8 24 ♕g6+ ♔f8 25 ♗xh5 ♕g7 26 ♔b2 ♕xg6 27 ♗xg6 ♘c8 28 h4 *(D)*

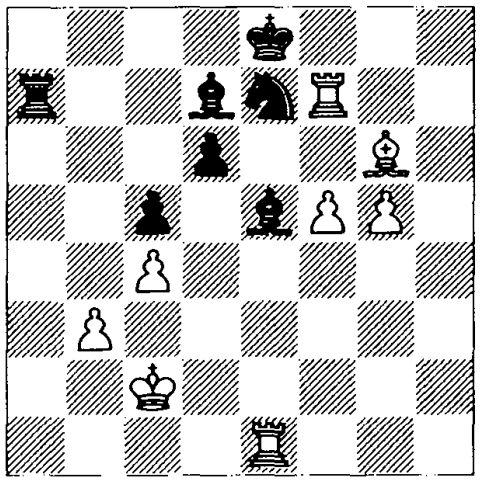
B



White retains the advantage in the endgame, but it is understandable that winning by a direct attack, quickly and by force, is quite another thing from winning a slightly favourable ending, in the face of tough defence, extending over many moves. In addition, psychologically it is difficult to make such an adjustment, when you have missed a chance to end the game earlier in one move. Such ups and downs use up a great deal of energy and make it difficult to continue playing at one's best later in the game. I shall look at only one critical moment from the remainder of the game.

28...♗xd6 29 ♖he1 c5 30 g4 ♗c6 31 ♖e8+ ♔g7 32 g5 ♗f4 33 ♖g1 fxg5 34 hxg5 d6 35

♖e6 ♗d7 36 ♖e4 ♗h2 37 ♖ge1 ♖a7 38 ♖h4 ♗e5+ 39 ♔c2 ♘e7 40 ♖h7+ ♔f8 41 ♖f7+ ♔e8 *(D)*



Despite everything, Rublevsky has managed to bring the game to this highly promising position, and could now have secured a decisive advantage by 42 ♖xe5! dxe5 43 ♗h5 ♖a2+ 44 ♔c3 ♔d8 (after 44...♖h2 45 f6! Black's lack of checks with the bishop becomes important; following 45...♘c6 46 ♖h7+ ♖xh5 47 ♖xh5 ♗f5 48 ♖h8+ ♔f7 49 ♖a8 White obtains a large advantage) 45 f6 ♘c6 46 ♖f8+ ♔c7 47 f7! ♖f2 (after 47...♘b4 48 ♗g6! ♖f2 49 ♗b1 ♗e6 {immediately losing is 49...♗f5 50 ♗xf5 ♖xf5 51 ♔d2!} 50 g6 ♔d7 51 g7 White should win) 48 ♔d3! ♘d4 49 ♖a8 ♘e6 50 ♔e3 ♖f4 51 g6 ♗c6 52 ♖e8, etc. Unfortunately, he missed this opportunity.

42 ♗h5?

But you can judge for yourself how much greater and more complicated are the variations which White needed to calculate here, compared with those arising after the missed win at move 23! Therefore White's mistake here deserves some sympathy and understanding. Even so, we should note that a missed chance often does not reappear again, and if it does, it is frequently in a more difficult and complicated form. In the game there followed:

42...♖a2+ 43 ♔d3 ♖h2! 44 ♖xe5!?

The last try, but already too late. The tempo lost by White on move 42 saves Black.

44...dxe5 45 f6 ♗f5+

This check is the key for Black.

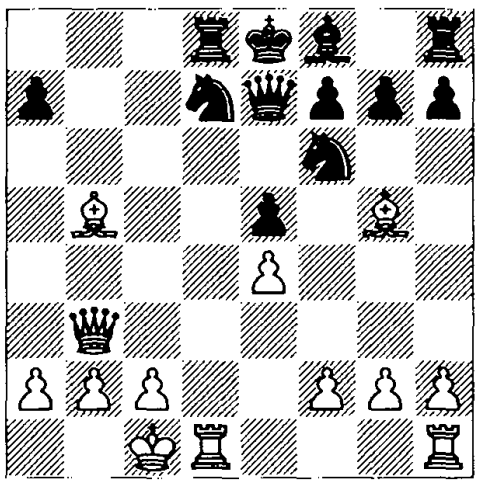
46 ♔e3 ♖h3+ 47 ♔d2 ♖xh5 48 ♖xe7+ ♔f8 49 ♖xe5 ♖xg5 50 ♖xc5 ♔f7 51 ♖c6 ♖g3 52 ♖b6 ♗e6 53 ♔c2 ♔xf6 54 ♖d6 ♔e5 55 ♖d8 ♗f5+ 56 ♔b2 ½-½

Now the two promised examples from the games of Morphy, which I give without detailed notes, so as not to deflect ourselves far from the main subject. The same considerations that affected the missed opportunity in the game just examined were present for Morphy in one of the most celebrated games in chess history.

Morphy – Duke of Brunswick and Count Isouard

Paris Opera 1858

1 e4 e5 2 ♘f3 d6 3 d4 ♗g4?! 4 dxe5 ♗xf3 5 ♕xf3 dxe5 6 ♗c4 ♘f6? 7 ♕b3 ♕e7 8 ♘c3 c6 9 ♗g5 b5? 10 ♘xb5! cxb5 11 ♗xb5+ ♘bd7 12 0-0-0 ♖d8 *(D)*



13 ♖xd7!

The point of this sacrifice is that White removes the knight from that part of the board where the enemy king is located, while himself in effect only giving up the inactive rook on h1. In so doing, he immediately obtains a decisive material advantage in the part of the board which matters.

13...♖xd7 14 ♖d1 ♕e6 15 ♗xd7+!

15 ♕xe6+ fxe6 16 ♗xf6 and 15 ♗xf6 gxf6 16 ♗xd7+ ♕xd7 17 ♕b8+ also win easily, but how could one possibly pass up the chance of such an effective and delightful solution?

15...♘xd7 16 ♕b8+!! ♘xb8 17 ♖d8# (1-0)

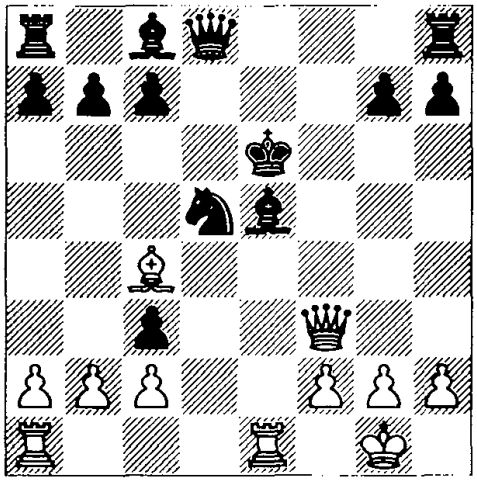
The following game, also very well-known, was played in a blindfold display, and develops in very similar fashion to the previous one:

Morphy – NN

Blindfold simul, New Orleans 1858

1 e4 e5 2 ♘f3 ♘c6 3 ♗c4 ♘f6 4 d4 exd4 5 ♘g5 d5 6 exd5 ♘xd5? 7 0-0 ♗e7 8 ♘xf7 ♔xf7 9 ♕f3+ ♔e6 10 ♘c3! dxc3 11 ♖e1+ ♘e5 12 ♗f4 ♗d6 13 ♗xe5 ♗xe5 *(D)*

W



14 ♖xe5+!

Again, the point of the sacrifice is that, paradoxically, it increases (by a whole piece) White's material advantage in the sector of the board where the action is taking place: at the moment, the white rook stands on a1 and takes no part in the action. One move later, it has taken its colleague's active post, while the opponent no longer has his bishop. White's approach here is purely dynamic, i.e. based on a rapid change in the position.

14...♔xe5 15 ♖e1+ ♔d4 16 ♗xd5 ♖f8

Other moves also offer Black no salvation:

a) 16...cxb2 17 ♖e4+! ♔c5 18 ♕c3+.

b) 16...♕f6 17 ♕d3+ ♔c5 18 b4+ ♔b6 19 ♕e3+ ♔a6 20 ♕c5 b5 21 a4.

c) 16...♕d6 17 b4! ♕xb4 18 ♖e4+ ♔c5 19 ♕e3+ ♔b5 20 ♕d3+ ♔a5 21 ♖xb4 ♔xb4 22 ♕c4+.

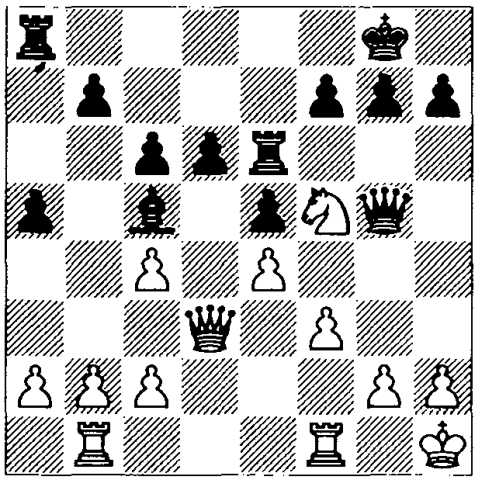
d) 16...♖c8 17 ♕d3+ ♔c5 18 b4+.

White's sacrifice has proved fully justified.

17 ♕d3+ ♔c5 18 b4+ ♔xb4 19 ♕d4+ ♔a5 20 ♕xc3+ ♔a4 21 ♕b3+ ♔a5 22 ♕a3+ ♔b6 23 ♖b1# (1-0)

In the following simple but very nice example, it is more difficult to find the solution by logical analysis than by knowing combinative motifs. But the example allows us to deal with another important topic within this section about tactics.

B



Delekta – Geller

Cappelle la Grande 1992

Let us first of all examine the position from the point of view of our logical analysis approach. Material is equal, but Black has several positional pluses. One factor is the safety of the two kings. Whereas Black's king is solidly defended, his opposite number is much less so, especially on the h2-square and the whole of the h-file. In addition, Black's pieces are more active and better coordinated. In particular, Black's bishop is much superior to White's knight. If both pieces were removed from the board, White's position would be markedly improved. His king would feel more secure and his major pieces would find it much easier to manoeuvre within their own camp, and coordinate with each other better. In this case, the game would be about equal. This is all due to the powerful position of the black bishop, and the knight's lack of secure points in the centre.

So, in summary, White can expect to have significant problems with the safety of his king,

particularly down the h-file. In addition, White's knight cannot find a good safe square. This means that Black must seek a way to combine an attack on the enemy king with the harassment of his knight. The move 17...g6 suggests itself, but this has the significant drawback of depriving the rook of access to the important h6-square. On the other hand, if the knight is not driven away, the rook cannot go to h6 anyway!

Two questions arise:

a) How to resolve this contradiction?

b) Does the position offer Black sufficient grounds for thinking that, objectively, there should be a clear solution?

The answer to the second question should come from the analysis already set out and we can say yes, there are such grounds. Having drawn that conclusion, we can recall our aphorism: "If it doesn't work, but you very much want it to, then it must work!" which applies to positions where one has a large positional advantage, but no immediate solution is evident. After that, we should look for a *revolution*. And when a player has such an approach, the tactical solution to the strategic problem is always there somewhere. There followed:

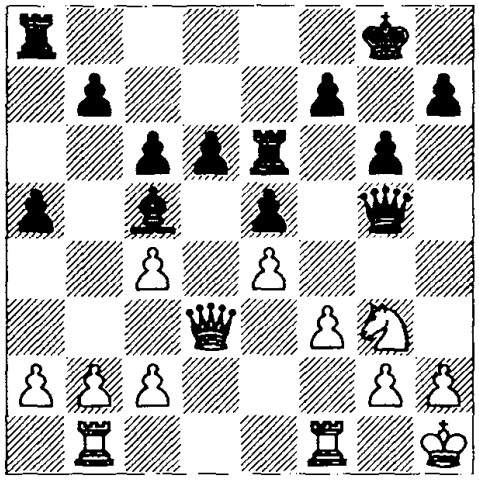
17...g6!

All the same!

18 ♘g3 *(D)*

After 18 h4 ♕d8 19 ♘h6+ ♔g7 20 ♘g4 ♕xh4+ 21 ♘h2 ♗f2 Black has a large advantage.

B



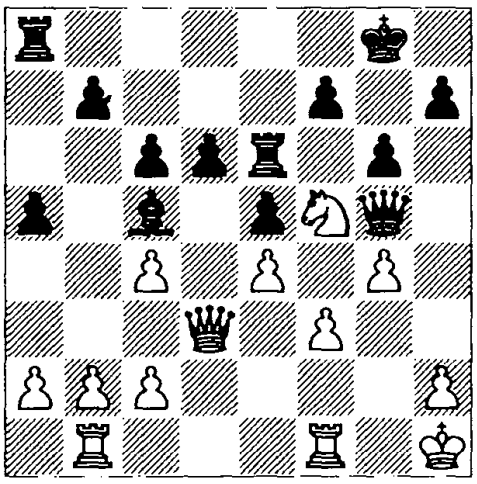
18...♕xg3!

The whole point! Now after 19 hxg3 g5 mate is unavoidable. So:

0-1

So, is that all there is to it? No! Let us return to White's 18th move and look more carefully at the position. Is White really completely helpless? If you think hard, you will spot the counter-resource 18 g4! *(D)*.

B



White maintains material equality although obviously at the cost of a clearly weakened position. In this case, Black does not have chances of a direct attack, but by utilizing the weakening of his opponent's kingside, and continuing 18...a4!?, in accordance with all the laws of chess strategy, he can seize space and create pressure on the other flank too, with every chance of increasing his advantage to decisive proportions.

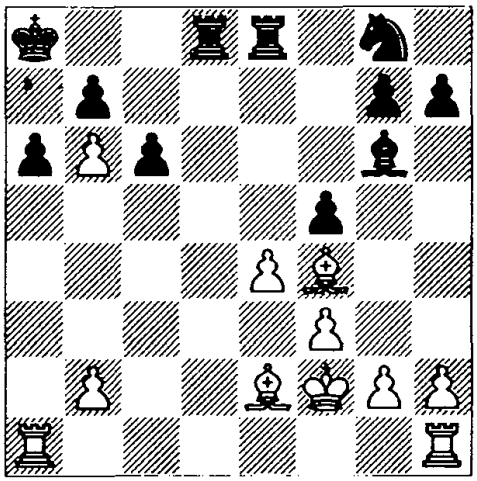
What conclusions can we draw from this fragment?

a) Similar examples of the exploitation of an open file often occur in collections of combinations. Consequently, as we have already said, a player who works constantly at solving such exercises will find it easier to solve this position, by using his experience, than a player who relies solely on logical analysis of the position.

b) In order to use this method in the present position, we have to be able to see something very important – the connection between strategy and tactics in chess.

Let's examine another fragment on this same theme:

W



Chiburdanidze – Polovnikova
Krasnoturinsk 2004

White has achieved great activity on the queenside, but her opponent has sought counterchances by means of a blow in the centre. Tactics help White to find a reliable means of crowning her strategic achievements.

25 ♖xa6+!

The only way! The variations 25 exf5 ♗xf5 26 ♖hd1 (26 b4?! ♖d4 ∓) 26...♘f6 27 ♗e5 ♗d3! and 25 ♗c7 ♖d2 26 e5 ♘f6! (worse is 26...♘e7 27 ♖hd1 ♖xb2 28 ♖d7) clearly show that quiet play is not enough for White in this position. And it follows from this that a tactical solution to the problems of the position is often *obligatory*!

25...bxa6 26 ♗xa6 fxe4

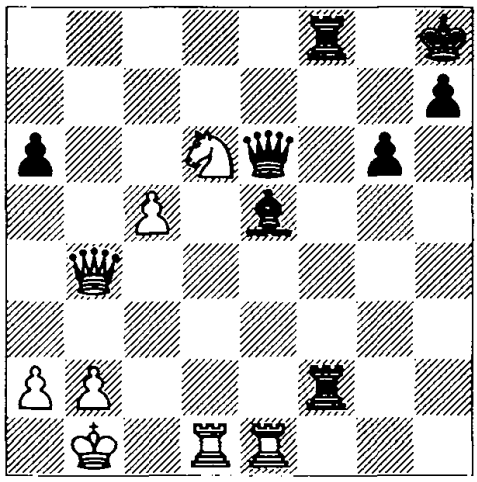
If 26...♖d7 27 ♖a1 ♖ee7, the quickest and best way to win is provided by another tactical 'explosion': 28 b7+! (the 'technical' approach would significantly complicate matters and make the stronger side's task more difficult: 28 ♗c8+ ♖a7 29 ♖xa7+ ♖xa7 30 bxa7 fxe4 31 ♗e3 ♘f6) 28...♖xb7 29 ♗b5+ ♖a7 30 ♗xc6+ ♖eb7 31 ♖d1! ♖a6 32 ♖d8+ ♔a7 33 ♗e3+ (this variation was pointed out by Golubev).

27 ♖a1 e3+ 28 ♔e1 1-0

The last two examples show that a positional advantage can be developed by 'natural' means only up to a certain limit. There then almost always comes a moment when further progress by normal means becomes impossible, and the player is forced to turn to decisive measures, that is, the sort of measures we have described as revolutionary. And this means using tactical methods to solve strategic or technical problems. In other words, it is part of the inherent logic of chess that there almost always comes a point in the game when the achievement of the desired strategic ends becomes extremely difficult, or even impossible, without using tactics.

And now a few words about one of the fundamental aspects of the topic under consideration in this book. It is well known that tactical errors tend to be punished much more severely and sharply than strategic errors. In addition, tactics frequently decide the outcome of games. There are countless examples of this. But because many of the positions we have already examined or will examine later on are connected with this question, I shall only present one specific example here.

B



L. Dominguez – Quezada
Cuban Ch, Santa Clara 2005

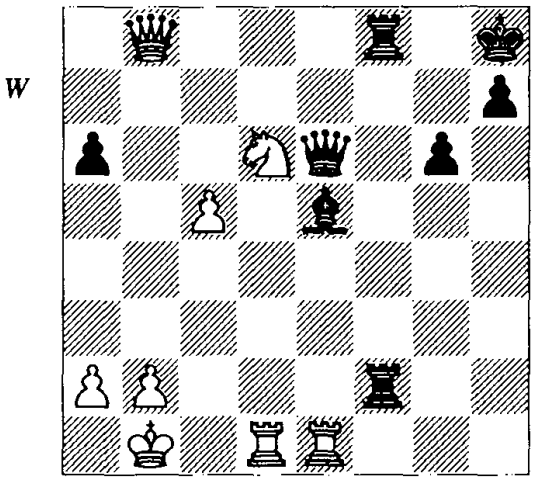
With material equality, each side has its positional trumps. White has his centralized rooks and knight, Black in turn his powerful pair of rooks and the bishop, pointing directly at the white king, plus the queen lying in wait behind. Because king safety is always more important than other factors, and here it is Black to move, he must concentrate all his efforts on finding the quickest way to break through to the b2-square. At the same time, he also needs to take account of his opponent's chances and try to be

the first to create real threats. He could do all of these things by means of 34...a5! and after the white queen moves away by 35 ♕b6 (or 35 ♕b7) Black can play 35...♕g4! and achieve his aim. But he missed this chance and instead played...

34...♖8f4?

This allows White to put the pluses of his position to use:

35 ♕b8+ ♖f8 *(D)*



36 ♘f7+!?

Now White is not satisfied with the draw after 36 ♖xe5 ♖xb8 37 ♖xe6 ♖bxb2+. And events proved this to be the right decision.

36...♖2xf7 37 ♕xe5+ ♕xe5 38 ♖xe5

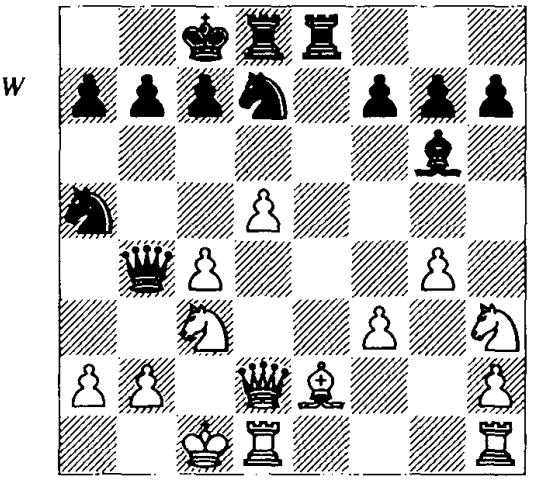
White went on to win a prolonged ending, which I give without commentary.

38...♔g7 39 c6 ♖c7 40 ♖c5 ♖f6 41 ♖dc1 ♖f4 42 a3 h5 43 b4 h4 44 ♔b2 h3 45 ♔b3 h2 46 a4 ♖f3+ 47 ♔b2 ♖f2+ 48 ♔b3 ♖f3+ 49 ♔b2 ♖f2+ 50 ♔c3 ♖f3+ 51 ♔c4 ♖f4+ 52 ♔d5 ♖xb4 53 ♔d6 ♖c8 54 c7 ♖d4+ 55 ♔c6 ♖h4 56 ♖h1 ♖f8 57 ♔b7 ♖b4+ 58 ♔a7 ♖b2 59 c8♕ ♖xc8 60 ♖xc8 g5 61 ♖c3 1-0

Developing Tactical Skills

From these last three examples, plus the many others we have already examined, we can draw an important conclusion. If a player who is talented when it comes to outplaying an opponent strategically is at the same time insufficiently refined tactically, then he will squander many points, probably ending up as the sort of player who is forever boring everybody around him by complaining how yet again he has been cheated by fortune and has failed to win a winning position.

If you wish to avoid this fate yourself, then you must develop your tactical mastery! For this purpose, it is useful regularly to study examples from master practice, such as the three which follow.



Kuijf – Hodgson
Wijk aan Zee 1989

There is the terrible threat of 16...♘c5. The best way to stop this is by moving the knight from c3. However, White chose an unfortunate route:

16 ♘b1?

It was essential to play the knight to e4. After 16 ♘e4 ♕a4 17 b3 ♕a3+ 18 ♕b2 ♕xb2+ 19 ♔xb2 ♗xe4 20 fxe4 ♖xe4 a roughly equal position is reached. In the game, Black destroyed his opponent with a series of crushing blows:

16...♕b3! 17 ♗d3

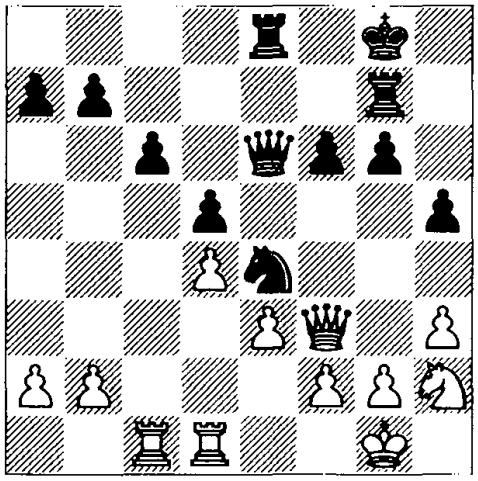
17 ♘a3 also loses, to 17...♕xa2 18 ♕xa5 ♕a1+.

17...♕xa2 18 ♕b4

If 18 ♕c3 the most forcing way to win is 18...♘b3+ 19 ♔c2 ♘a1+! 20 ♔d2 ♗xd3! 21 ♔xd3 ♘c5+ 22 ♔d2 ♘cb3+! 23 ♔d3 ♕a6! 24 ♘f4 ♖xd5+ 25 ♘xd5 ♕g6#.

18...♖e2! 19 ♗xe2 ♘b3+ 20 ♕xb3 ♕xb3 21 ♖d2 ♕e3 0-1

B



Bobotsov – Petrosian
Olympiad, Lugano 1968

In his typical style, Petrosian has built up an advantage almost out of nothing, but in order to win, he needs to find a way to make further progress. He needs to hurry, since if White manages to transfer the knight via f1 to d2 (just two moves), he will significantly reduce his opponent's pressure. A successful solution requires tactics:

33...g5!

Threatening the highly unpleasant ...g4. White does not have much choice.

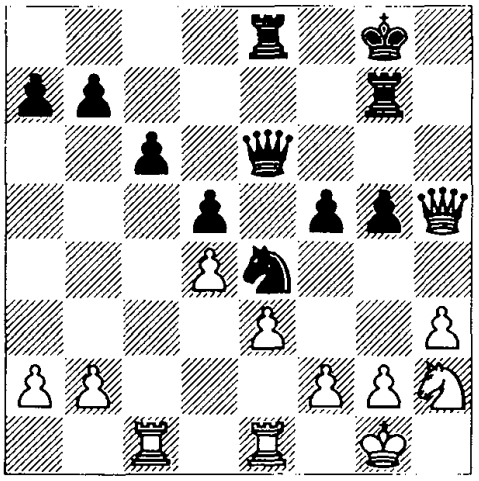
34 ♕xh5

Necessary, since after 34 g4 hxg4 35 hxg4 ♖h7 36 ♔g2 ♖h4 Black has a significant advantage.

34...f5 35 ♖e1 *(D)*

If 35 ♕e2 g4 36 hxg4 fxg4 37 g3 ♖f8 38 ♖f1 ♘g5! White is in a bad way.

B

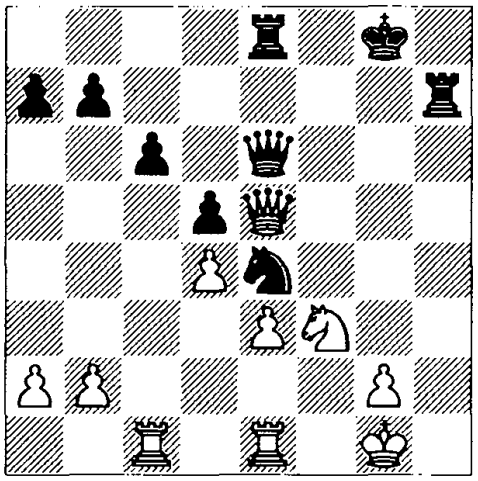


35...g4 36 hxg4 fxg4 37 f3

Other continuations are also bad; for example, 37 ♖c2 ♖g5 38 ♕h4 ♖e7 39 f4 (only move) 39...♖gg7! 40 g3 ♘d6!, while White also loses in the variation 37 g3 ♖g5 38 ♕h4 ♔g7.

37...gxf3 38 ♘xf3 ♖h7 39 ♕e5 *(D)*

B



Now a simple finish follows:

39...♕c8! 40 ♕f4 ♖f8 41 ♕e5 ♖f5 0-1

The whole of this next classic example is based on the use of tactics to fulfil strategic aims.

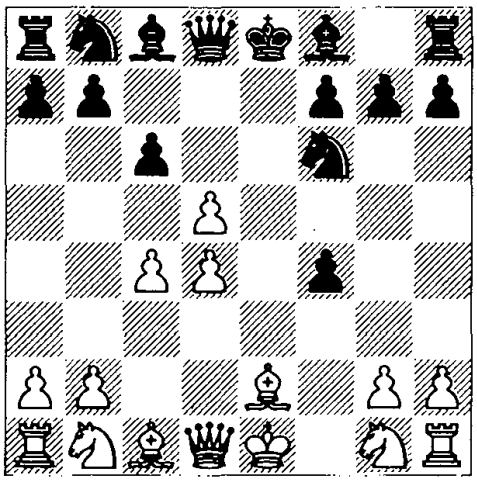
Tartakower – Capablanca
New York 1924

1 e4 e5 2 f4 exf4 3 ♗e2?

This strange move hardly fits in with the ideas of the gambit, as Capablanca clearly demonstrates.

3...d5 4 exd5 ♘f6 5 c4 c6 6 d4 *(D)*

B



6...♗b4+!

A rare thing – a theoretical novelty from Capablanca! It is also a novelty which is based entirely on the tactical nuances of the position. After the less resolute 6...cxd5 7 ♗xf4 dxc4 8 ♗xc4 ♗b4+ 9 ♘c3 an equal position was reached in Tartakower-Bogoljubow from the first round of the same tournament.

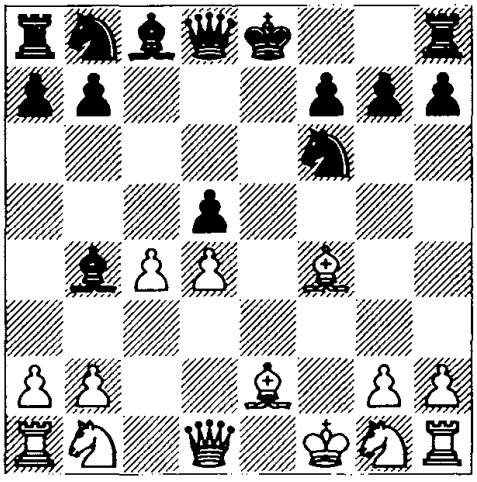
7 ♔f1

The first misfortune for White. He cannot play 7 ♗d2 because of the reply 7...♘e4! 8 ♗xb4? ♕h4+.

7...cxd5 8 ♗xf4 *(D)*

Alekhine, in an attempt to find an improvement for White, recommended 8 c5!? with the variation 8...g5 9 ♘f3 h6 10 h4 ♘e4 11 hxg5 ♘g3+ 12 ♔f2 ♘xh1+ 13 ♕xh1, which gives some positional compensation for the material, but it appears that Black can play more strongly with 8...♘e4!? 9 ♘f3 ♘c6 10 ♗xf4 ♕f6, when he has an indisputable advantage.

B



8...dxc4!

Another elegant and strong tactical blow, allowing Black to open the game and isolate the white d-pawn.

9 ♗xb8?!

White confidently marches along the path prepared by his opponent, but even after the stronger 9 ♗xc4 0-0 Black retains a lasting advantage.

9...♘d5! 10 ♔f2

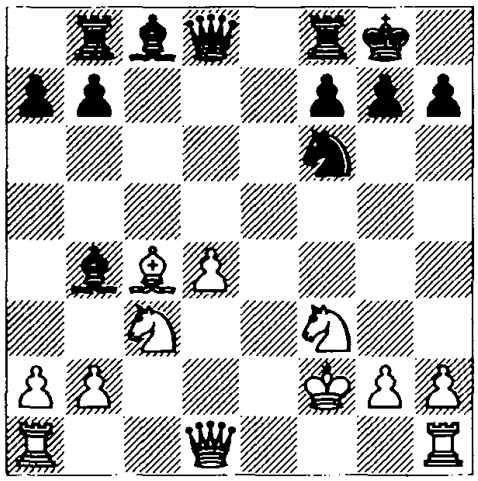
It turns out that after 10 ♗f4 ♕f6! the bishop is lost anyway. This is the point of the *petite combinaison* (as Capablanca himself liked to call such tactical blows in the service of strategy) begun by Black's 8th move.

10...♖xb8 11 ♗xc4 0-0 12 ♘f3

It was better, as recommended by Alekhine, to simplify the position by means of 12 ♗xd5 ♕xd5 13 ♘c3 ♕d6, but even then there is no doubting Black's advantage. Now Capablanca retains the knight, which proves a very valuable piece in exploiting the weakened dark squares.

12...♘f6! 13 ♘c3 *(D)*

B



13...b5!

In this position, Black has a choice of continuations. The lines 13...♗xc3!? 14 bxc3 ♘e4+ 15 ♔g1 ♘xc3 16 ♕e1 b5! and 13...♘g4+!? 14 ♔g1 ♘e3 both look good, but Capablanca chooses the most energetic move.

14 ♗d3

In the event of 14 ♘xb5 ♘e4+ 15 ♔g1 a6 16 ♗d3 (Black has a decisive advantage after 16 ♘a3 ♗xa3 17 bxa3 ♗g4 18 ♗b3 ♖b6!) 16...♘g5 17 ♘xg5 ♕xg5 18 ♘c3 ♖d8 the white position is scarcely defensible.

14...♘g4+ 15 ♔g1 ♗b7 16 ♗f5

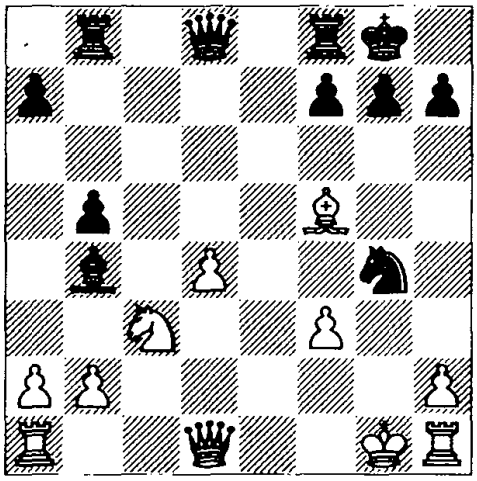
Bad is 16 ♗e4 ♗xc3 17 ♗xb7 ♗xb2 18 ♖b1 ♖xb7 –+, while after 16 ♘e4 f5!? 17 ♘eg5 (17 ♕b3+ ♗d5 18 ♘f6+ ♖xf6 –+) 17...♗d5 Black is also winning.

16...♗xf3 17 gxf3 *(D)*

The last few moves have been largely forced, and White has barely managed to ward off the threats. Now Capablanca continues with his energetic attack, based on accurate calculation.

17...♘e3! 18 ♗xh7+ ♔h8 19 ♕d3 ♗xc3!

B



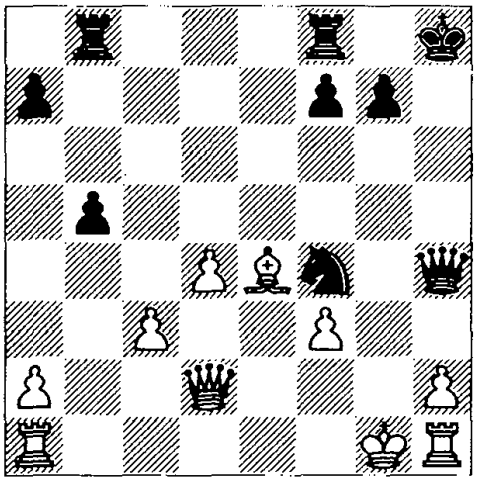
Here there was also another way to win: 19...♘c4! 20 b3 ♘b2!, but Capablanca consistently plays for the attack.

20 bxc3 ♘d5 21 ♗e4

The other bishop retreat also loses: 21 ♗f5 ♕g5+ 22 ♔f2 (22 ♗g4 f5 23 h4 ♕f4! –+) 22...♘f4, as does 21 ♕f5 ♘f6.

21...♘f4 22 ♕d2 ♕h4 *(D)*

W



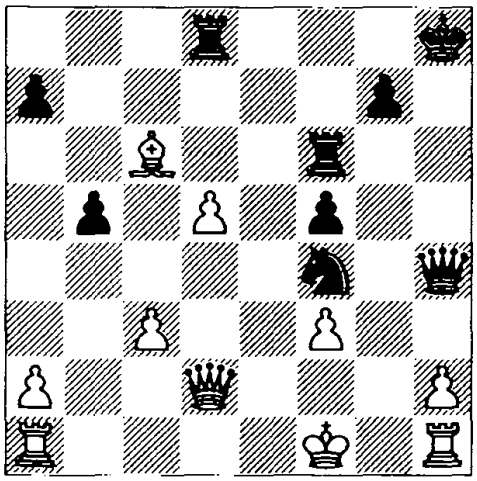
This is the position Capablanca had been aiming for when he played his 17th move. It is quite hopeless for White, because he cannot coordinate his forces. Black's queen and knight work together excellently, and the rook can easily come into play.

23 ♔f1

One variation which is typical of the position is 23 a4 f5 24 ♗c6 ♖f6 25 axb5 ♖g6+! 26 ♔f1 ♖xc6! and Black wins. The tactical nuance 23 ♕e1 ♕g5+ 24 ♕g3 ♘e2+ is also important.

23...f5 24 ♗c6 ♖f6 25 d5 ♖d8! *(D)*

W



A decisive conclusion to a brilliant strategic game. As is characteristic of the whole game, it is based on tactics. White cannot save his bishop, even though it is apparently defended! This remarkable position is the climax of the operation begun by Black at move 17.

26 ♖d1

Not 26 ♕e3 ♕h3+ – the last subtlety.

26...♖xc6 27 dxc6 ♖xd2 28 ♖xd2 ♘e6 29 ♖d6 ♕c4+ 30 ♔g2 ♕e2+ 0-1

I very much love this apparently simple, and at the same time very deep game.

The following game again shows that the successful culmination of chess strategy is often impossible without tactical mastery.

Topalov – Kasimdzhanov

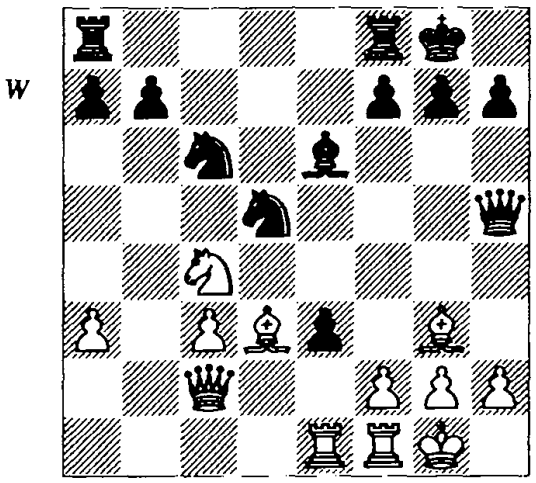
Linares 2005

1 d4 d5 2 c4 e6 3 ♘c3 ♗e7 4 ♘f3 ♘f6 5 ♗f4 0-0 6 e3 c5 7 dxc5 ♗xc5 8 a3 ♘c6 9 ♕c2 ♕a5 10 ♘d2 ♗b4

In this game, the players have used one of the most modern variations of the Queen's Gambit, a line which is sharp, complicated and well-analysed. I shall not give details about the opening, as the only important part for our purposes is the positional content of the struggle.

11 cxd5 exd5 12 ♗d3 d4 13 0-0! ♗xc3 14 ♘c4 ♕h5 15 bxc3 ♘d5 16 ♗g3 dxe3 17 ♖ae1! ♗e6 *(D)*

Accepting the pawn sacrifice is unfavourable to Black, since another open line would play into White's hands.



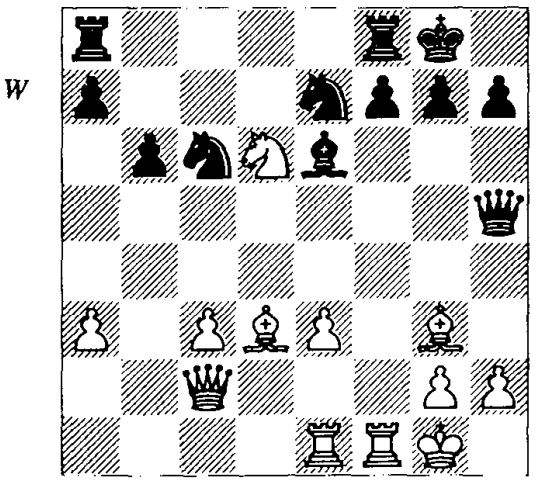
18 fxe3!

This capture, further weakening White's already rickety pawn-structure, is an essential part of his strategy in this variation, which is based on exploiting the dynamic pluses of White's position. After 18 ♘xe3 ♖ad8 White has only a minuscule advantage.

18...♘de7

The alternative is 18...♖ad8 19 ♘d6, although after 19...♘e5 20 ♗xh7+! ♕xh7 21 ♕xh7+ ♔xh7 22 ♗xe5 White eventually won in Topalov-Kramnik, Monaco (Amber blindfold) 2001.

19 ♘d6 b6 *(D)*



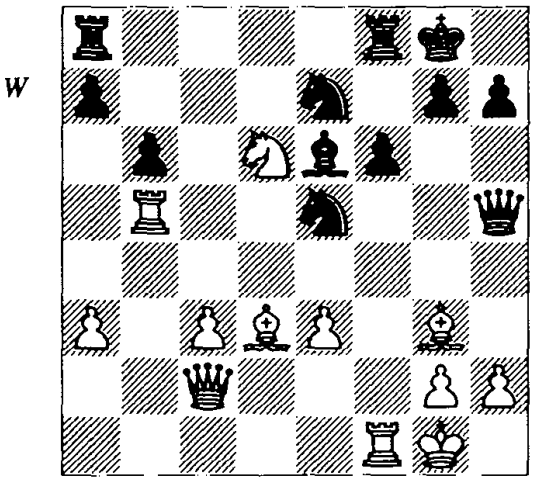
20 ♖b1!

As already pointed out, all of White's hopes are based on his more active pieces. Therefore his strategy depends on constantly developing his initiative.

20...f6

Black's plan was clearly prepared by him in advance. His piece formation appears harmonious, but contains two important drawbacks: the delay in bringing his rooks into the game, and the dangerous position of his queen. White's subsequent play is based on these factors.

21 ♖b5 ♘e5 *(D)*



22 ♖f4!

White continually operates with threats, so as to utilize his development advantage and also to transfer his rooks to the open d-file.

22...♘7g6 23 ♖d4 ♗d7?!

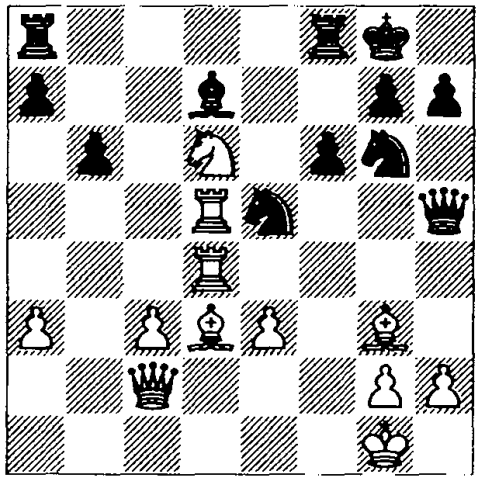
Kasimdzhanov underestimates the strength of his opponent's well-coordinated forces and overlooks some tactical nuances of the position, which play an important role in what follows. After the natural move 23...♖ad8 Scherbakov points out the resource 24 a4!?, aiming to open additional lines on the queenside and retaining the initiative for White. A simple but characteristic variation is 24...♗d7? (Scherbakov's suggestion 24...♖d7 is significantly better) 25 ♗c4+ ♔h8 26 ♘f7+ ♖xf7 27 ♗xf7 with a winning position. On the basis of this line, as well as what later occurs in the game, one can conclude that 23...♔h8!? would be a useful move for Black.

24 ♖bd5! *(D)*

24...♗e6?

This move proves to be the decisive mistake, after which White wins in combinative style. The line 24...♗c6? 25 ♗e2! ♕g5 (25...♕h6?? 26 ♘f5 +–) 26 ♗f4 ♘xf4 27 exf4 ♕g6 28 ♕a2 ♔h8 29 fxe5 fxe5 30 ♖d1 ♖f6 31 ♗b5 ♗xd5

B

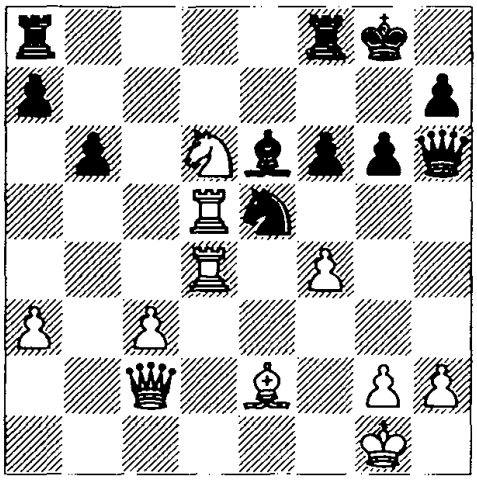


32 ♕xd5 is also bad for Black, so the move 24...♔h8! now appears essential. From this moment, the game takes on a forcing character and I am unable to suggest a saving resource for Black at any point.

25 ♗e2! ♕h6 26 ♗f4! ♘xf4 27 exf4 g6 *(D)*

An important element of White's combination is the variation 27...♗xd5 28 ♘f5! netting the queen. White also wins after 27...♔h8 28 ♕e4! ♗xd5 29 ♕xd5 ♖ad8 30 fxe5! ♕e3+ 31 ♔h1 ♖b8 32 ♗f1 fxe5 33 ♖d1 ♕f4 34 ♗c4 g6 35 ♘f7+ ♔g7 36 ♖f1, etc.

W



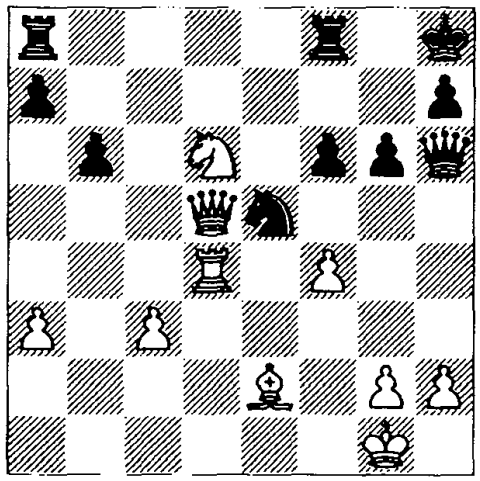
28 ♕e4!

Very well played. The consequences of this move demanded accurate calculation. But the time and effort spent on this move made Topalov's life easier later on, since he avoided the tempting line 28 fxe5 ♗xd5 29 ♖xd5 ♕e3+ 30 ♔h1 fxe5 which is far from clear. Now the game ends by force.

28...♗xd5 29 ♕xd5+ ♔h8 *(D)*

After 29...♔g7 30 ♖e4! White wins a knight.

W



30 ♖e4!

A splendid final blow to crown White's powerful combinative play. Now he soon reaps the harvest. By contrast, 30 fxe5? ♕e3+ is not good.

30...♘d7

30...♘g4 loses to 31 ♗xg4 f5 32 ♘f7+ ♖xf7 33 ♕xa8+ ♔g7 34 ♖e8 ♕xf4 35 ♗e2.

31 ♘f7+ ♖xf7 32 ♕xf7 1-0

After 32...♘c5 (32...♘f8 33 ♖e7) 33 ♖e8+ ♖xe8 34 ♕xe8+ ♔g7 35 ♕e7+ ♔h8 36 ♕d8+ ♔g7 37 ♕c7+ ♔h8 38 ♕b8+ ♔g7 39 ♗c4 ♕h4 40 ♕g8+ Black is mated, and he therefore resigned.

From what we have seen, we can draw some more general and far-reaching conclusions. For example, it became clear some time ago that Tarrasch's archaic argument that a 'correctly' played game should not involve a sacrifice is quite misguided. He even went so far as to claim that tactics were only needed to correct previous mistakes (I present here only the general sense of what he said). But these days we can both confirm and add to Emanuel Lasker's much more sensible comments (see the quote at the start of Part 1). In my opinion, one should add the fact that while positional play is "the process by which the player tries to strengthen and exploit true values", these values are realized only by accurate calculation of variations and are inseparable from the calculation of tactics.

In addition, very often, especially in complicated and sharp positions, strategy is built on a large number of tactical nuances and it happens that the main strategic aim is to bring about a position which must end with the delivery of a tactical blow. In order to underline this, I suggest examining the following convincing example.

Kramnik – Topalov
Dortmund 1999

This game was annotated by Kramnik himself in the book *Kramnik: My Life and Games* (Kramnik & Damsky; Everyman, 2000) and I have made use of these annotations here.

1 d4 ♘f6 2 ♘f3 d5 3 c4 c6 4 ♘c3 a6 5 c5 ♗f5 6 ♗f4 ♘bd7 7 e3 e6 8 ♗e2 ♗e7 9 ♘d2!? ♗g6

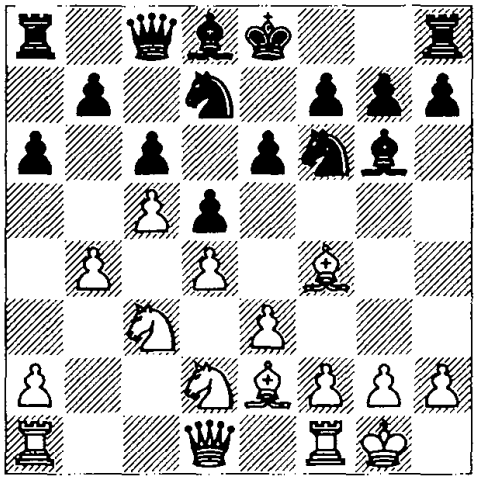
The players have adopted a variation of the Slav Defence which was becoming fashionable at the time. Even today, White's last move is considered the most principled method of fighting for the advantage. In reply, Black's bishop retreat is based on the fact that after 9...0-0 the pawn assault 10 g4!? ♗g6 11 h4 is unpleasant for Black. Nowadays 9...h6 is considered more accurate.

10 b4 ♕c8

Played with the aim of exchanging dark-squared bishops. At the time, this plan was considered the most accurate.

11 0-0 ♗d8 *(D)*

W



12 ♖c1!?

This move is based on prophylaxis. As Kramnik explains, 12 a4 ♗c7 13 ♗xc7 ♕xc7 14 f4 is met by 14...b6! with counterplay.

12...♗c7 13 ♗xc7 ♕xc7 14 f4

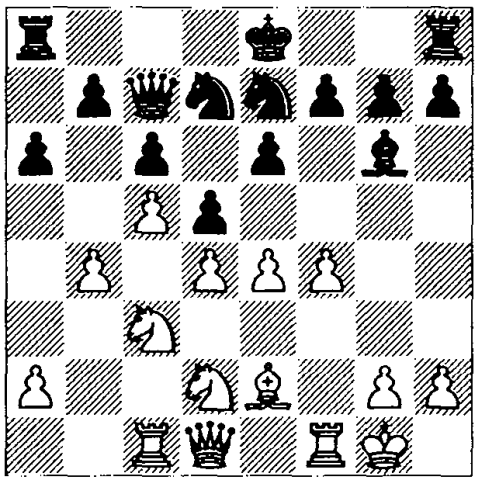
It is important to prevent 14...e5.

14...♘g8!?

Black takes steps against the attack which was possible after 14...0-0 15 g4 h6 16 h4, but this manoeuvre leads to a lag in development and weakens the centre, which White immediately exploits.

15 e4 ♘e7 *(D)*

W



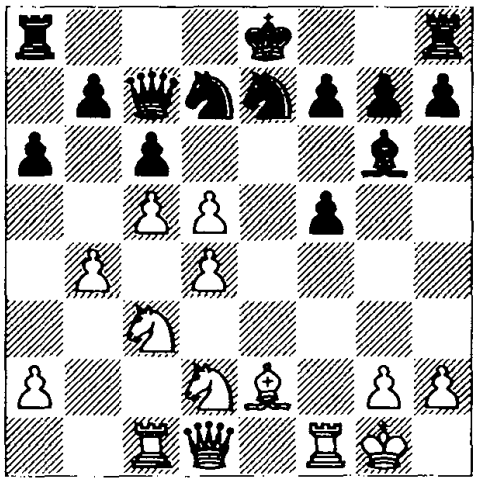
16 f5!?

This is how Kramnik assesses this move: "A very risky move, but I was keen to sharpen the struggle. It was possible to continue more slowly with 16 ♕e1!?". This evidently was a fully objective assessment, but it is useful to spend a little more time on this moment, because White makes an important choice, which determines the strategic direction of the play for a long time to come. What is the basis of this decision? The first thing which strikes one when looking at this position is White's space advantage on the queenside. This is based on the c5-pawn. In this respect, it is easy to see how well-placed the white rook will be on c1, in the event of the black c6-pawn being removed. This consideration is the first advantage accruing to White if his pawn sacrifice is accepted. The second benefit is that the black pawn which materializes on f5 blocks, albeit temporarily, his g6-bishop and e7-knight, and the latter in turn blocks the e-file, which brings White a temporary advantage. In

sum, these two factors lead to the following situation: White obtains a space advantage and an extra pawn on the queenside, after which his main target will be the b7-pawn, the base of Black's queenside pawn-chain. Black, in his turn, will try to regroup his forces and exploit his material advantage in the centre and on the kingside. In other words, as a result of the pawn sacrifice, a race starts, in which the material element becomes secondary for the moment. In such situations, tactics and calculation become the decisive factors. In these areas, both players are specialists of the highest order.

16...exf5 17 exd5 *(D)*

B



17...cxd5!

As Kramnik points out, worse is 17...♘xd5 18 ♘c4 0-0 (after 18...♘xc3 19 ♖xc3 0-0 20 d5 White has a strong initiative) 19 ♘xd5 cxd5 20 ♘d6 with an obvious advantage.

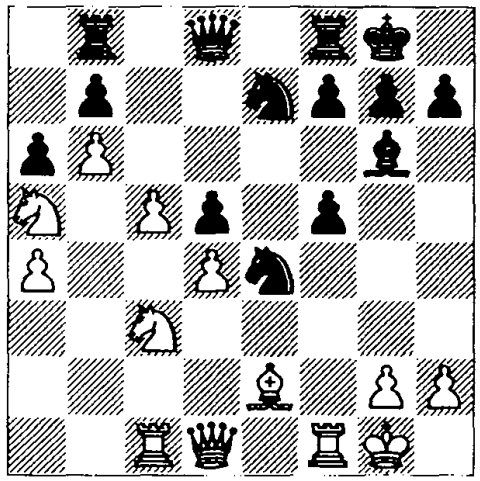
18 b5 0-0 19 b6 ♕d8

Topalov suggests 19...♕c8!? 20 ♘b3 ♘f6 21 ♘a5 ♘c6 which gives rise to an unclear position with chances for both sides.

20 ♘b3 ♘f6 21 ♘a5 ♖b8 22 a4 ♘e4 *(D)*
23 ♘a2

This retreat, although it prepares the jump of the knight to the powerful b4-square, loses some time in the tempo battle. It was played because in Kramnik's opinion, the thematic sacrifice of the knight on b7, which is a practically indispensable part of White's strategy, leads after 23 ♘xb7?! ♖xb7 24 a5 ♘c6 25 ♕a4 ♘xc3 26 ♖xc3 ♕f6 to an unclear position with counterchances for Black. Strangely, though, he does

W



not consider the natural recapture 24 ♗xa6 (nor does Hübner in his meticulous and positively professorial annotations). True, here too after 24...♖b8 25 ♗b5 ♖a8 26 ♕e1 f6! it is difficult to point to a continuation which gives White the advantage. After any move of the white knight the position is completely unclear: 27 ♘e2 ♗e8, 27 ♘xe4 dxe4 or 27 ♘a2 ♗e8.

After White's refusal to enter forcing lines, the position remains extremely complicated and his opponent suddenly fails to cope fully with these complications. He now played the decisive mistake of the game:

23...f6?

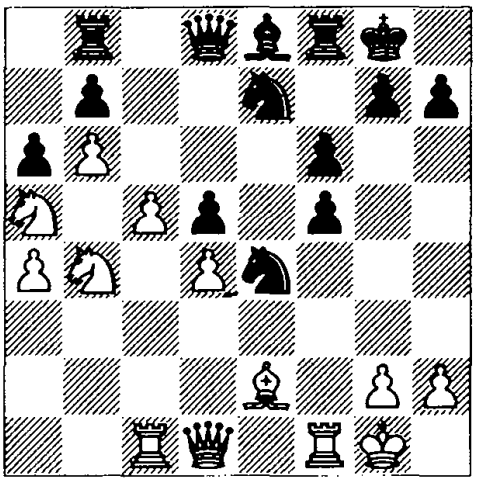
Both Kramnik and Hübner point out the essential continuation 23...f4! trying for counterplay without any delay. Then after 24 ♖xf4 ♘f5 and Fritz's suggested blow 25 ♗xa6!? (Kramnik gives the line 25 ♕d3 ♕g5 26 ♖cf1 ♖fe8 27 ♗d1 with an unclear struggle) interesting complications arise, from which I shall demonstrate only the main line: 25...bxa6 26 ♘c6 ♕g5 27 ♕g4 ♕f6! 28 ♘ab4 and now the only, though not easy to find, move, 28...♖fc8! (much worse is 28...♖bc8? 29 ♖xf5 ♗xf5 30 ♕xf5 ♖xc6 31 ♕xf6 ♖xf6 32 c6 and White wins). Then 29 ♖xf5 ♗xf5 30 ♕xf5 ♕xf5! (30...♖xc6? 31 ♕xf6 ♖xf6 32 ♘xa6! +–) 31 ♘e7+ ♔f8 32 ♘xf5 ♖xb6! (this counterblow is the whole point) 33 ♘xd5 ♖b2 leads to a position with roughly equal chances and a probable draw.

Black's mistake in the game is both interesting and very instructive. It illustrates very well the fact that in a sharp position, it is not enough to play according to general considerations (and

23...f6 looks very good on general principles – the currently inactive bishop comes into play and prepares to take control of the important e8-a4 diagonal). In such situations, one cannot manage without calculation. In the game, it was soon all one-way traffic:

24 ♘b4 ♗e8 *(D)*

W



25 ♕c2!

This continuation of the attack is much stronger than 25 ♘xb7 ♖xb7 26 ♗xa6 (also after 26 a5 ♘c6 27 ♗xa6 ♖e7 28 ♘xc6 ♗xc6 White's advantage is small) 26...♖xb6! 27 cxb6 ♕xb6 28 ♗b5 ♗xb5 29 axb5 ♕xb5 and White only has a small advantage.

25...g6

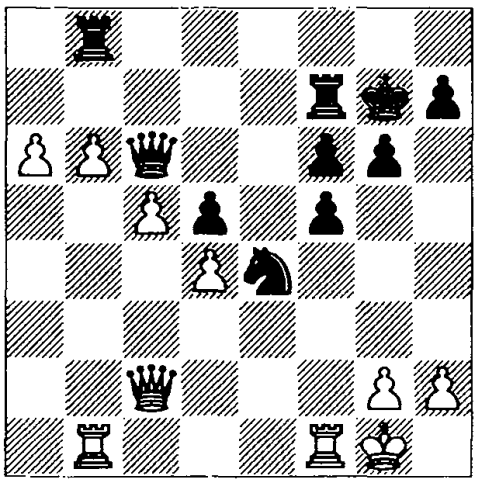
It was more stubborn to strive for counterplay at any cost by 25...g5!?, but even then, after 26 ♗d3!? White retains an undoubted advantage.

26 ♖b1! ♖f7

And now White finally lands the tactical blow on which his whole strategy has been based.

27 ♘xb7! ♖xb7 28 a5 ♘c6 29 ♘xc6 ♗xc6 30 ♗xa6 ♖b8 31 ♗b5! ♕c8 32 ♗xc6 ♕xc6 33 a6 ♔g7 *(D)*

W



The black queen is the only piece which obstructs the white pawns. Therefore White's next move is directed towards the exchange of queens.

34 ♖b4! ♘d6 35 ♕a4 ♕xa4 36 ♖xa4 ♘c8

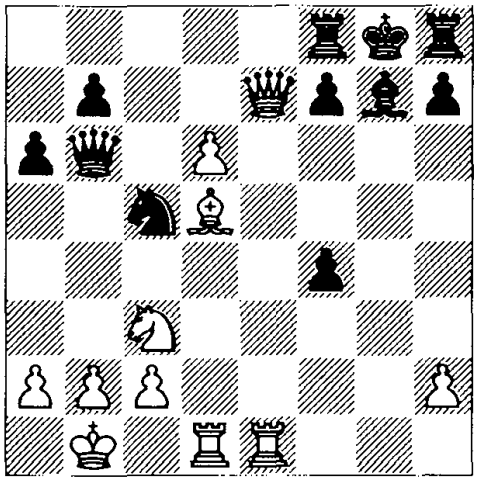
Or 36...♘c4 37 ♖b1 winning.

37 ♖b4 ♘a7 38 bxa7 ♖a8 39 c6! ♖axa7 40 ♖c1 1-0

Exercises for Part 1

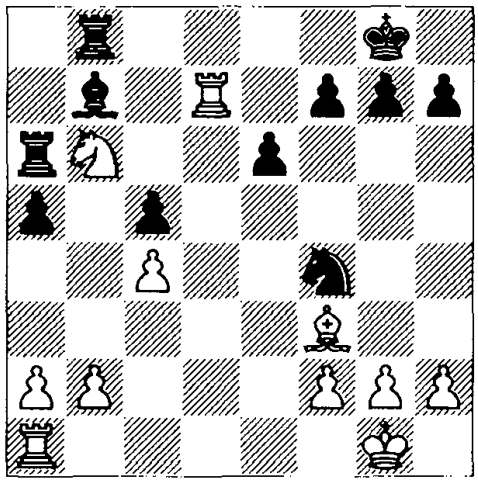
I have already spoken several times about the usefulness of daily training of one's tactical mastery. I shall therefore provide some positions, chosen from recent tournament practice, and recommend that the reader practice solving these by means of the technique of logical analysis which we examined earlier in this book.

1
W



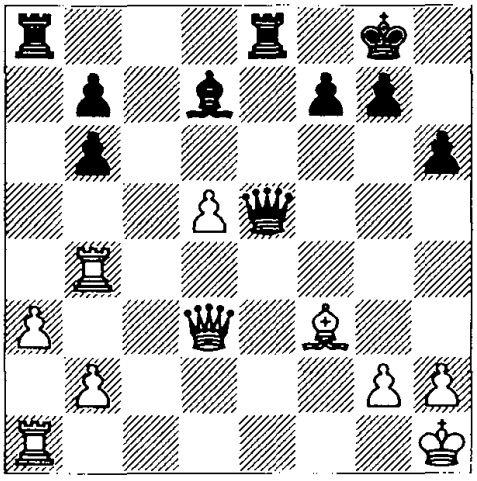
This very simple example is given by way of a warm-up. Try to find as many variations as possible that lead to a quick mate for White.

3
W



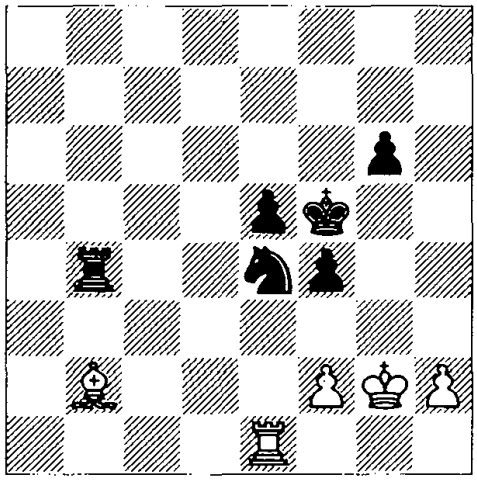
White to play

2
B



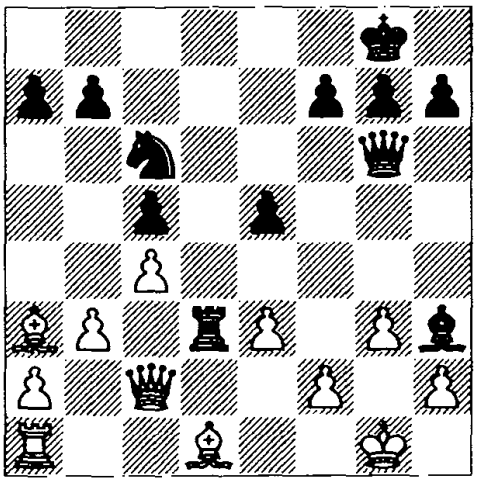
Black to play

4
W



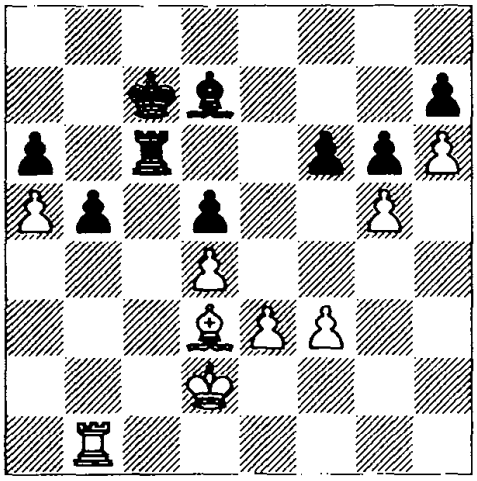
White faced the unpleasant prospect of a passive defence after 56 ♖e2 ♖b5. Not surprisingly, he preferred to resort to tactics. What were they, and do they work?

5
B



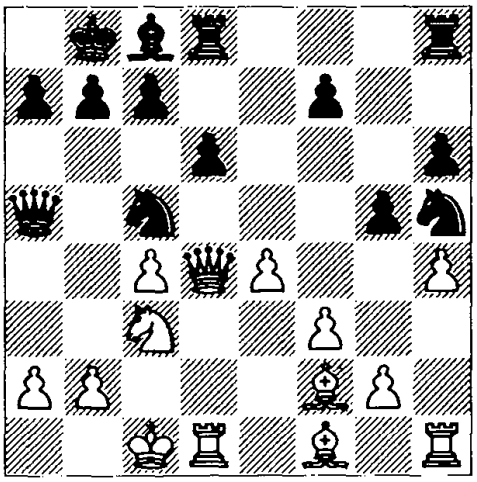
Black to play

8
W



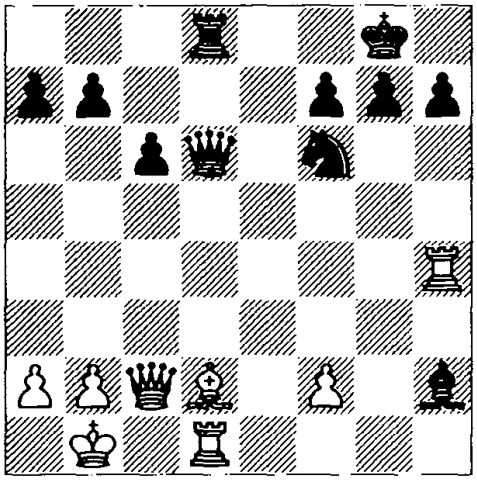
White to play

6
W



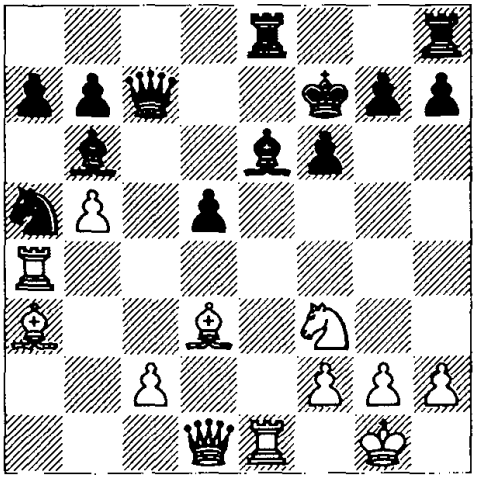
White to play

9
W



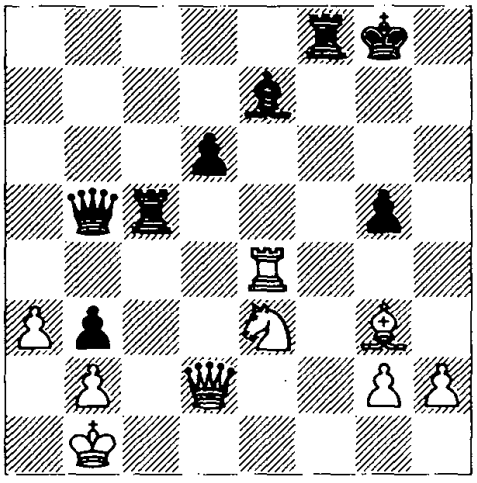
White to play

7
W



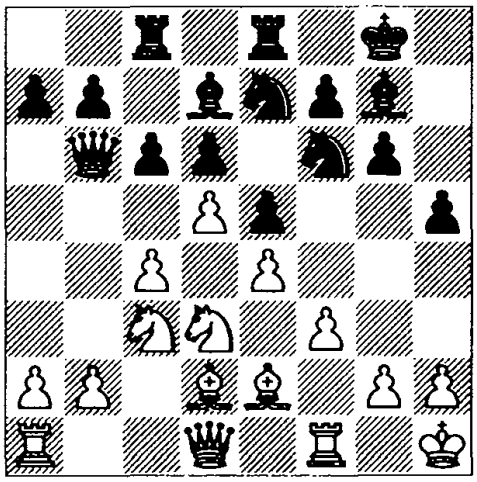
White to play

10
B



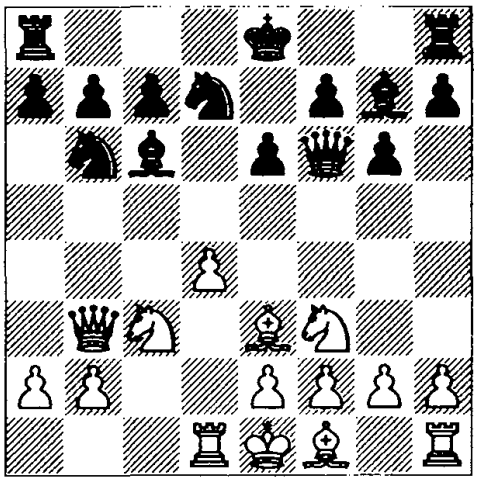
Black to play

11
W



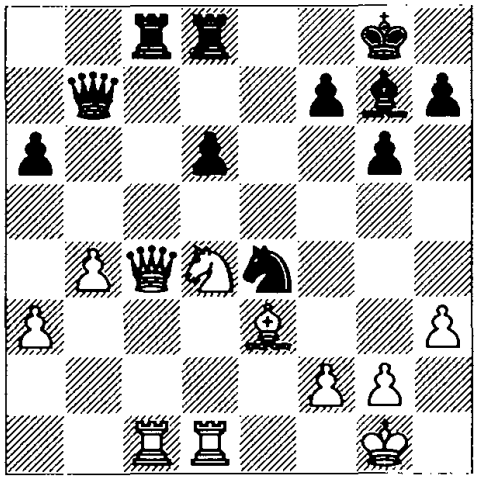
White to play

12
W



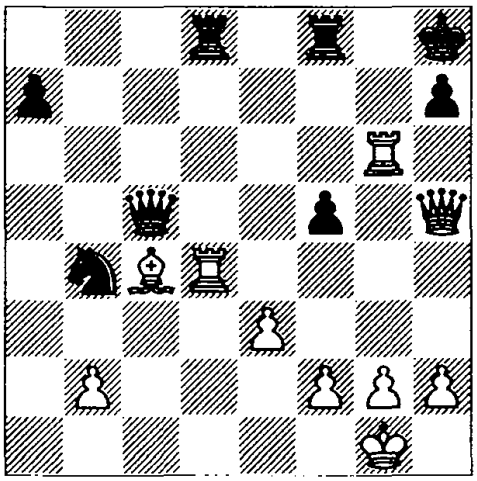
White to play

13
W



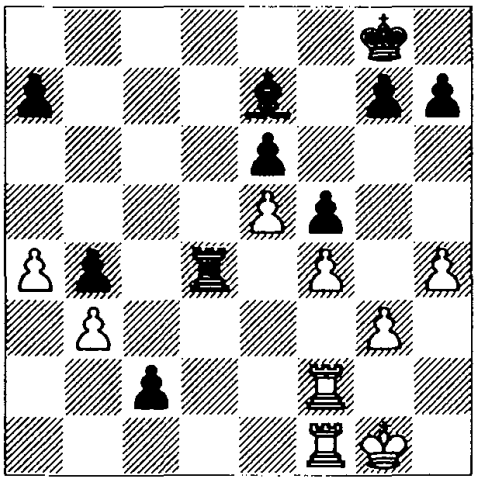
White to play

14
W



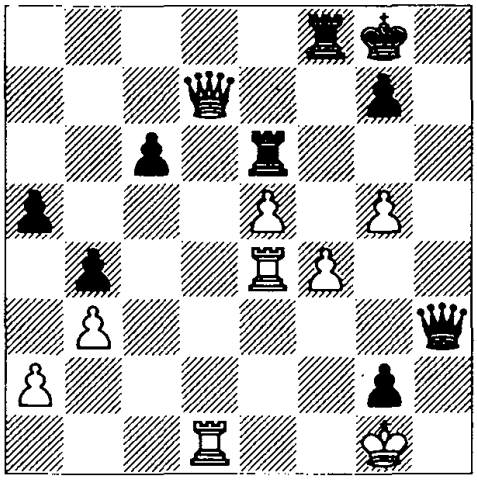
White to play

15
B



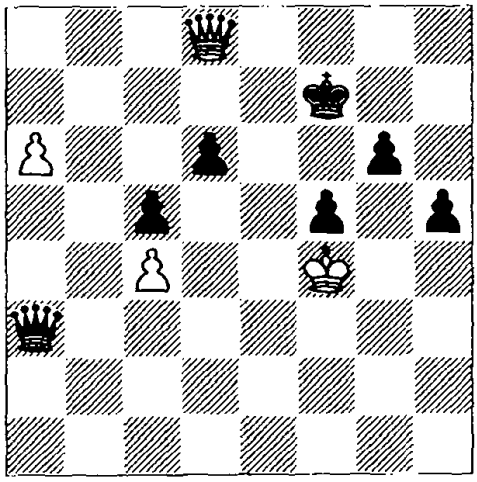
Black to play

16
B



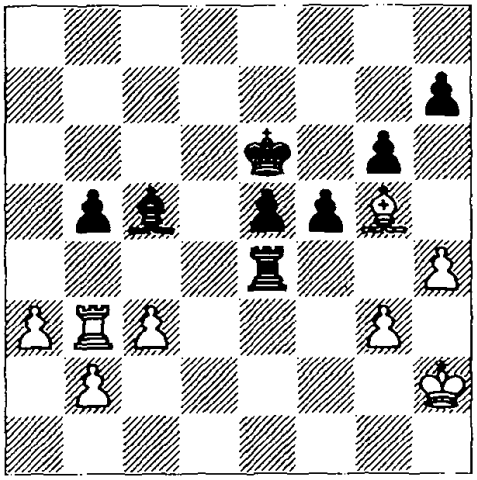
Black to play

17
B



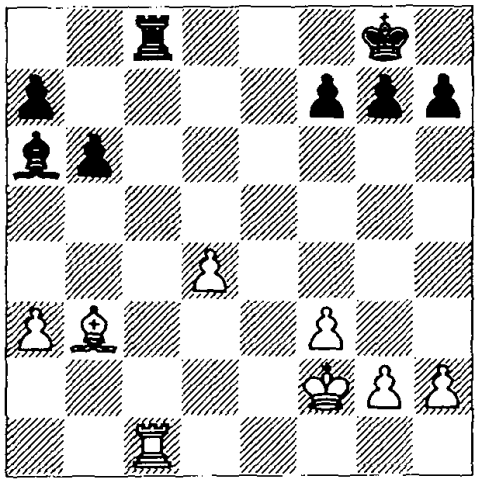
Black to play

20
B



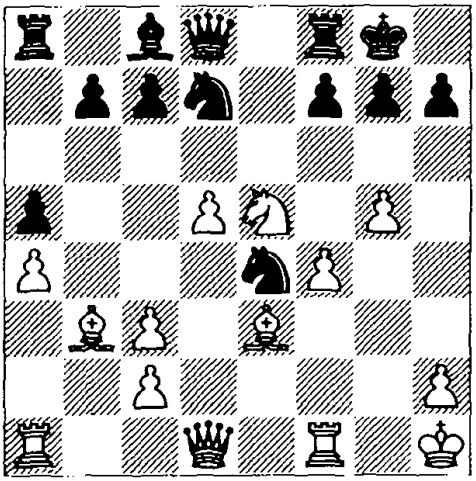
Black to play

18
W



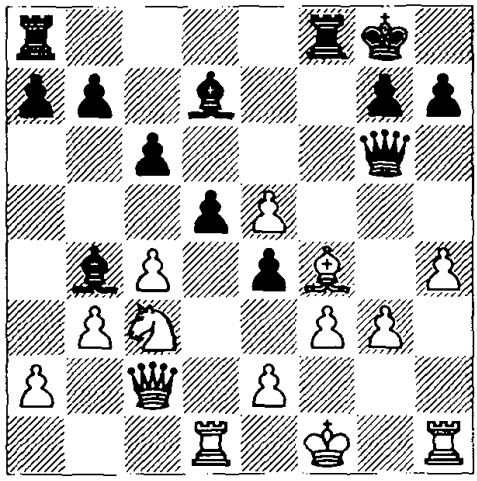
White to play

21
W



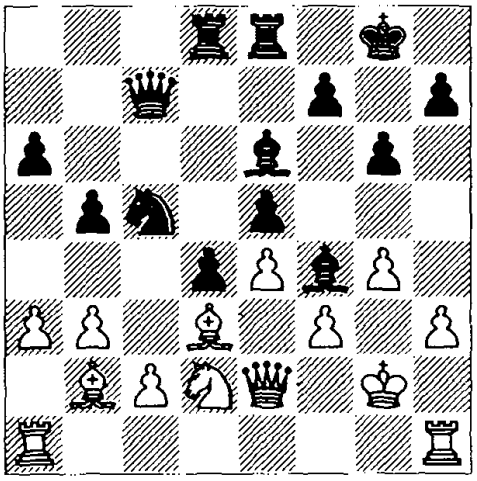
White to play

19
B



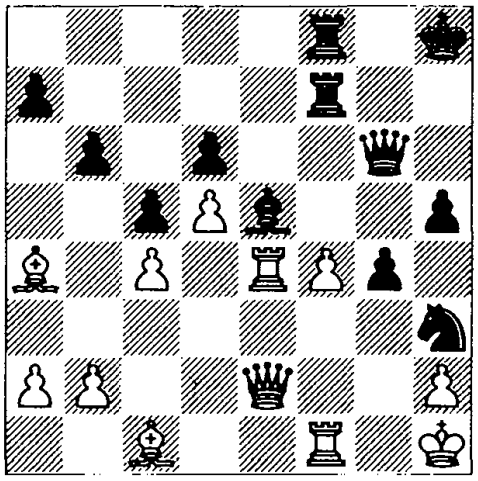
Black to play

22
B



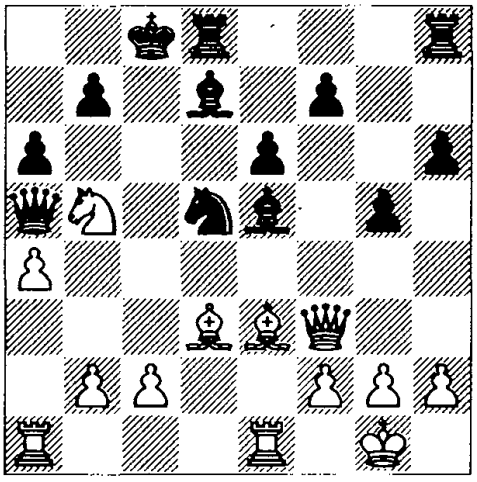
Black to play

23
B



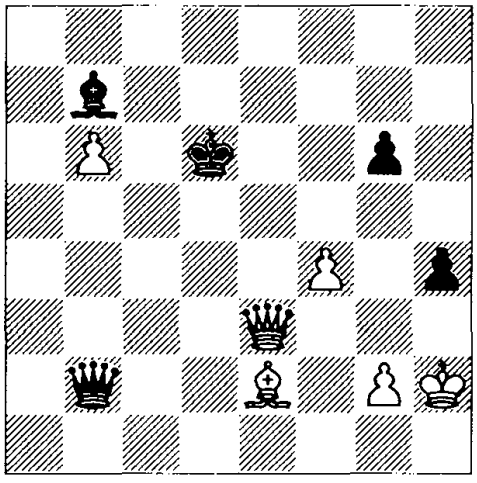
Black to play

24
W



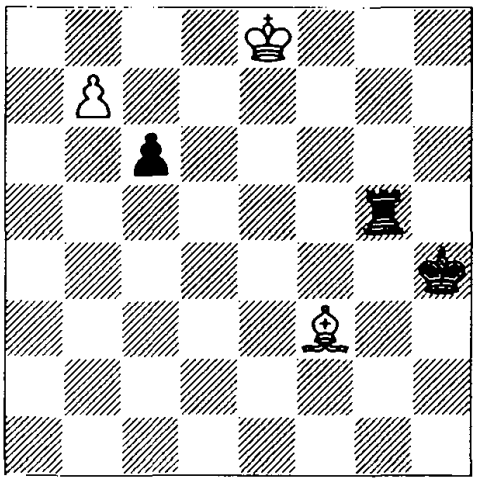
White to play

25
W



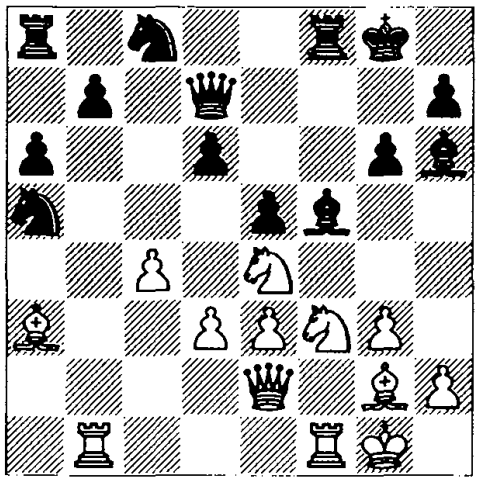
White to play

26
W



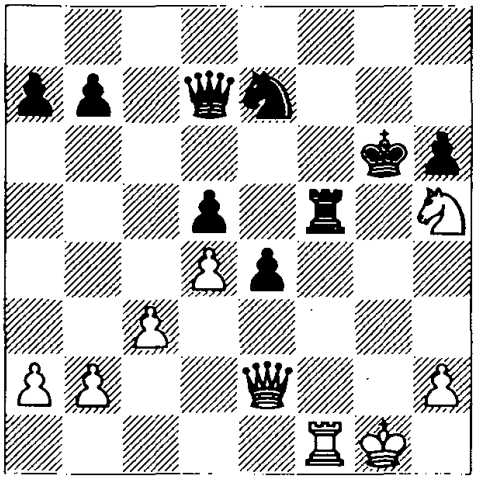
White to play

27
W



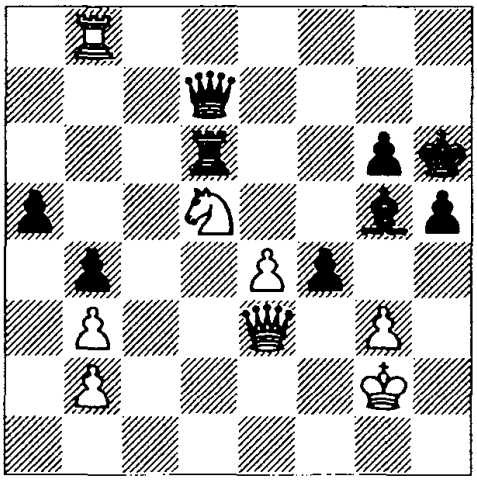
White to play

28
W



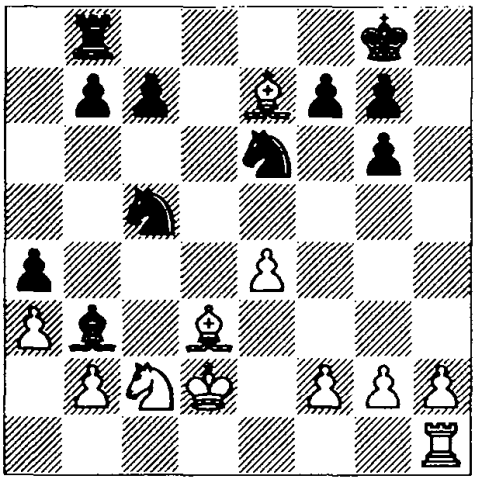
White to play

29
W



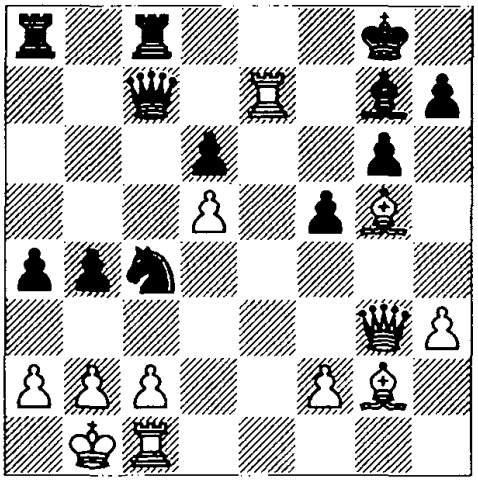
White to play

32
B



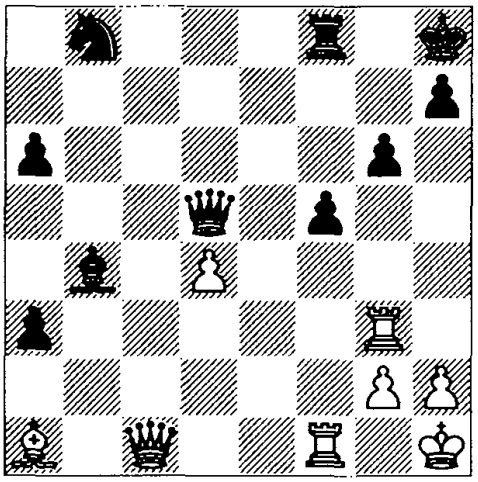
Black to play

30
B



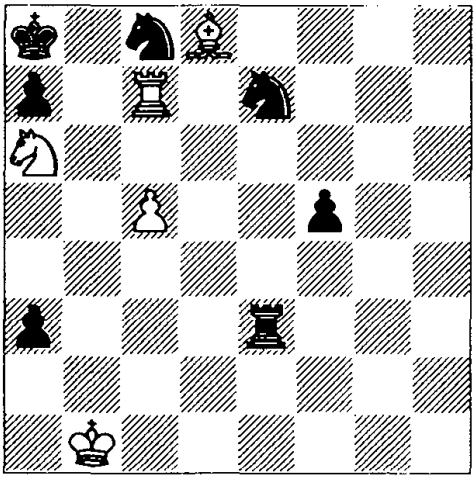
Black to play

33
W



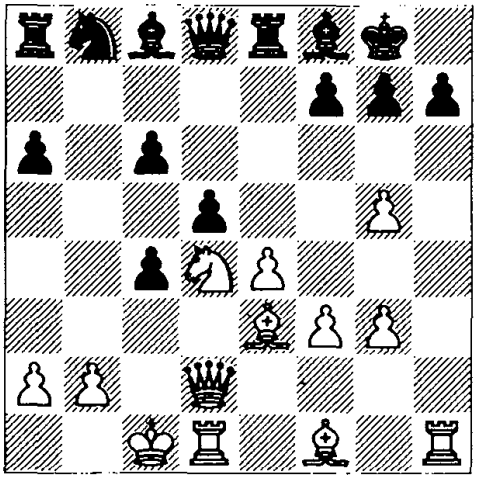
White to play

31
B



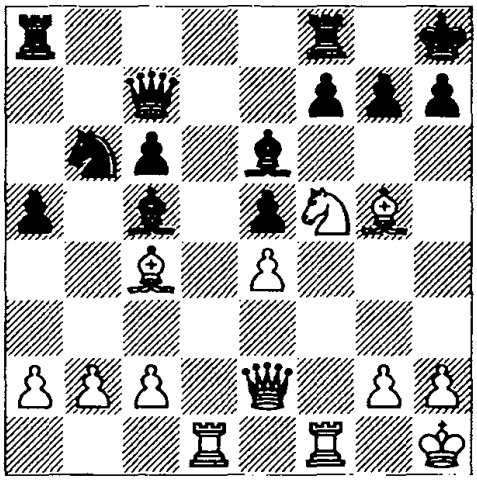
Black to play

34
W



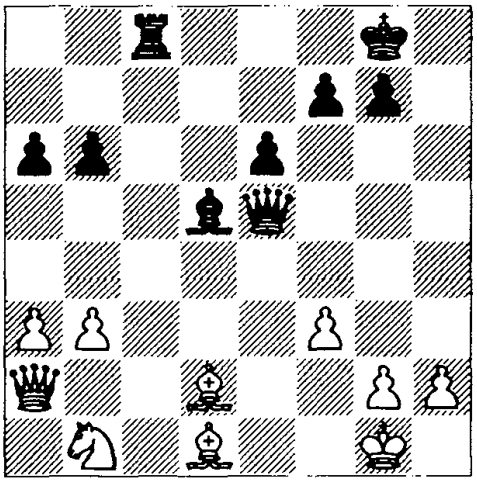
White to play

35
W



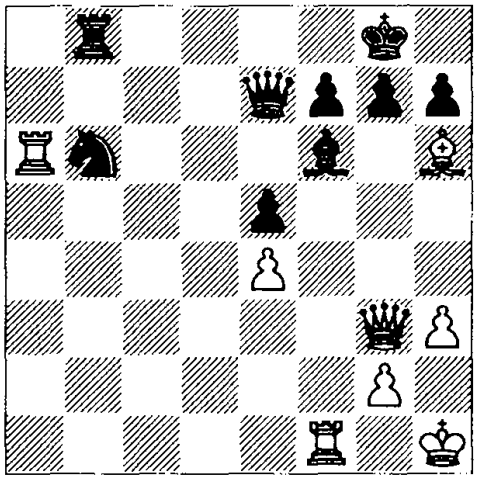
White to play

36
B



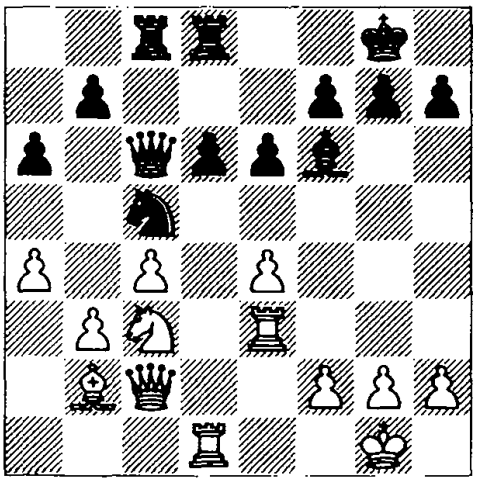
Black to play

37
W



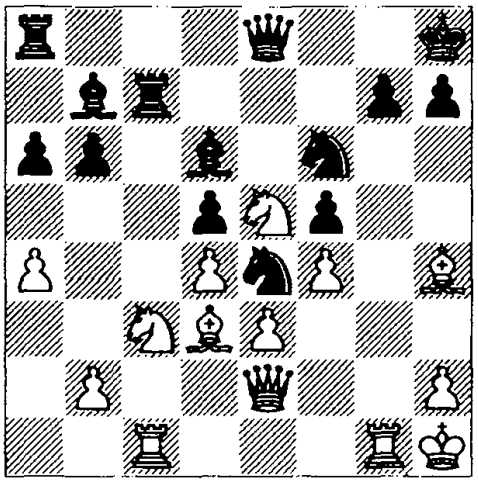
White to play

38
W



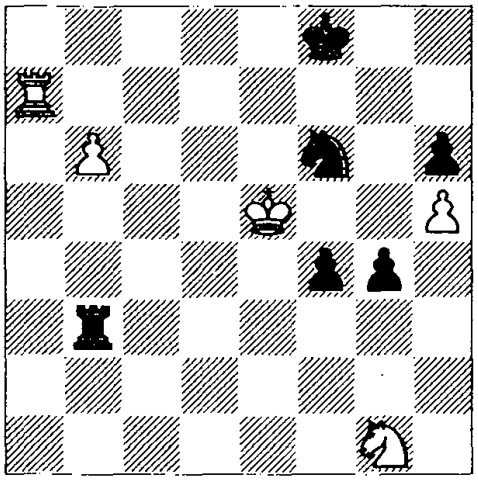
White to play

39
W



White to play

40
B



Black to play

Part 2: The Technique of Calculating Variations

In this section, we shall begin to look at the most important problem facing the practical player – the problem of calculating variations. Although this problem has been discussed many times in chess literature, it has never been fully resolved. In fact, I have never even seen a formulation that I considered satisfactory! However, many attempts exist to describe this important subject and to suggest methods of approaching it.

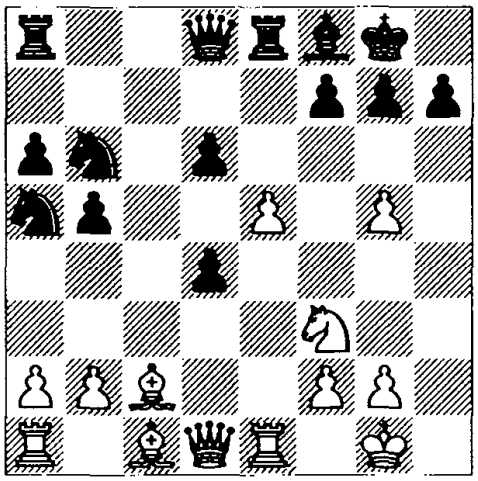
The best-known source on this subject are the writings of Kotov. The main feature of these is that they introduced into chess literature the term 'candidate moves'. But it has been clear for a long time that this one element itself, although important, does not constitute a full theory of the calculation of variations. In reality, this subject has a number of different aspects, many of which have never been covered in the literature, as far as I am aware. In this section, I shall endeavour to acquaint the reader with my views on the topics concerned, and will suggest my own method of studying this problem.

First of all, I must repeat that the problem contains a number of different aspects. We shall discuss each of these in turn.

Calculation and Tactics

In the first part of this book, devoted to tactics, the reader saw a number of examples which show how close is the connection between tactics and the calculation of variations. We shall now examine this in more detail. It goes without saying that the presence of a tactical motif in a position does not necessarily mean that it is possible to realize it. I shall illustrate this with two examples.

W



Spassky – Geller
Candidates match (game 6), Riga 1965

The combinative motif present in this position is clear to any player, even one with little experience. It is probably the best-known of all tactical motifs – the bishop sacrifice on h7. The calculation of the variations is also not terribly difficult in this case. Why Geller, himself a brilliant tactician, should have allowed such a possibility is another question.

20 ♗xh7+! ♔xh7 21 g6+ ♔g8

After 21...fxg6 22 ♘g5+ ♔g8 23 ♕f3 we reach the game position, while after 21...♔xg6 22 ♕d3+ f5 White wins by force with 23 exf6+ ♔f7 24 ♘g5+ ♔xf6 25 ♕f3+ ♔g6 26 ♕f7+ ♔h6 27 ♖e6+.

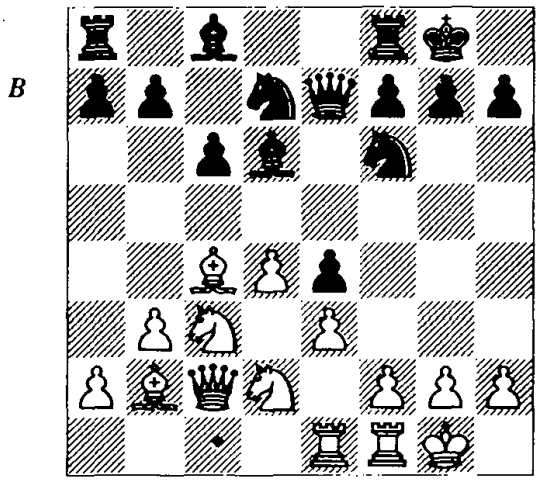
22 ♘g5 fxg6 23 ♕f3 ♕xg5

The queen sacrifice is the only chance to prolong the struggle. 23...♕d7 24 e6 and 23...♗e7 24 ♕f7+ ♔h8 25 ♘e6 lose more quickly.

24 ♗xg5

Black resisted stubbornly for another 20 moves, but could not avoid the inevitable (1-0, 44).

In the next example, the same combinative motif is even more obvious and appears to be completely standard. Naturally, therefore, Black could not resist the temptation.



Yusupov – Illescas
Ubeda 1997

12...♗xh2+? 13 ♔xh2 ♘g4+ 14 ♔g3

However, White now succeeded in fending off the attack.

14...♕d6+

Other attempts to get to the white king also fail:

a) 14...♕g5 15 ♘dxe4 ♕g6 16 ♔f3 and now there are several possibilities:

a1) 16...♘h2+ 17 ♔e2 ♕xg2 (after 17...♘xf1 18 ♔xf1 White has a large advantage) 18 ♖g1 and White beats off the attack and retains a decisive advantage.

a2) White is also winning after 16...b5 17 ♗d3 f5 18 ♘d2 ♘ge5+ 19 ♔e2.

b) After 14...♘df6 15 ♘dxe4 ♘h5+ 16 ♔f3 b5 17 ♗d3 f5 18 ♘c5 ♘h2+ 19 ♔e2 ♘f4+ 20 ♔d1 the white king is protected and he retains his extra material.

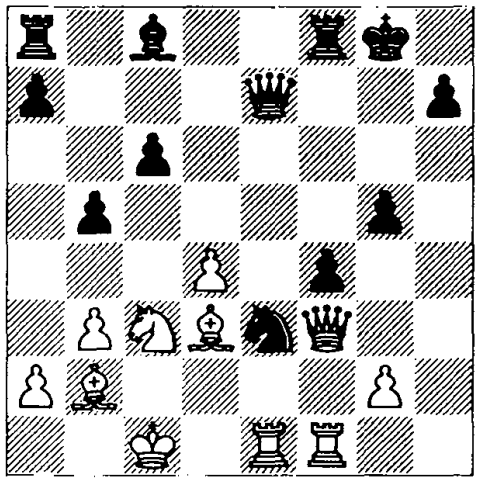
15 f4 exf3+

15...♕g6 loses to 16 f5.

16 ♔xf3 ♘df6

The variation 16...♘h2+ 17 ♔f2 ♘f6 18 ♘ce4 ♘fg4+ 19 ♔e2 ♕h6 20 ♖f4 also ends unpleasantly for Black.

17 ♘de4 ♘xe4 18 ♕xe4 b5 19 ♗d3 f5 20 ♕f4 ♕e7 21 ♔e2 g5 22 ♕f3 f4 23 ♔d1 ♘xe3+ 24 ♔c1 *(D)*



White has fully consolidated his position, retaining some of his extra material and a significant positional advantage (two bishops and the weaknesses in his opponent's position). He went on to realize his advantage confidently.

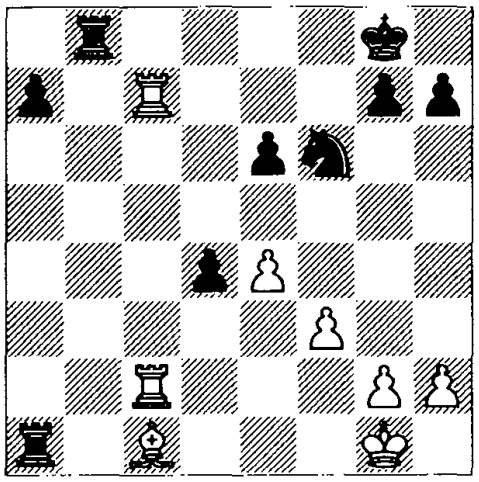
24...♖f7 25 ♖h1 ♗g4 26 ♕xc6 ♖c8 27 ♕xb5 a6 28 ♕e5 ♕xe5 29 dxe5 ♘xg2 30 ♖eg1 f3 31 ♗c4 ♖xc4 32 bxc4 ♖c7 33 ♘d5 ♖xc4+ 34 ♔d2 ♔f7 35 ♖xh7+ ♔g6 36 ♖h2 ♖e4 37 ♖hxg2 fxg2 38 ♖xg2 ♗f3 39 ♖f2 g4 40 e6 ♖a4 41 ♘c7 ♖xa2 42 ♔c1 1-0

So, what have we seen? In both cases the same combinative motif was present, but while in one case it worked out perfectly, in the other it merely brought the attacking side trouble. The reason for the difference is that in the first example, there were *objective* features for the motif to succeed, while in the second, the position did not contain a sufficient quantity of such factors. It follows from this that the mere presence of a tactical motif by itself is not enough. For the motif to be successfully realized, the position needs to contain sufficient objective conditions. *And the presence or absence of such objective conditions is something which can only be determined by calculation of variations.* While it is often fairly simple to detect the presence of a tactical motif, calculating the variations is frequently a difficult task, requiring considerable mastery. In other words, *tactics are impossible without calculation of variations.*

Trying to discuss which is more important, tactics or calculation, is pointless, since both

elements are extremely important. What is still more important, is that although there is a significant difference between tactical elements and the simple calculation of variations (we have already looked at what is the essence of tactics, and we shall consider what is involved in calculation below), in practice neither very often appears in its 'pure state'. In the majority of cases, they are inherently bound together. Let us consider a couple of examples that will help us get to grips with this obvious but very important point.

B



Van Wely – Anand
Amber rapid, Monte Carlo 1999

In this position, Black carried out a fairly simple decisive combination:

22...d3 23 ♖c8+ ♔f7!

The point! The 'automatic' continuation 23...♖xc8 is much weaker: 24 ♖xc8+ ♔f7 25 ♔f2 ♖a2+ 26 ♔e3 ♖xg2 27 ♔xd3 and Black has only a small advantage.

24 ♖2c7+

White's play is forced, as can easily be seen.

24...♔g6 25 ♔f2

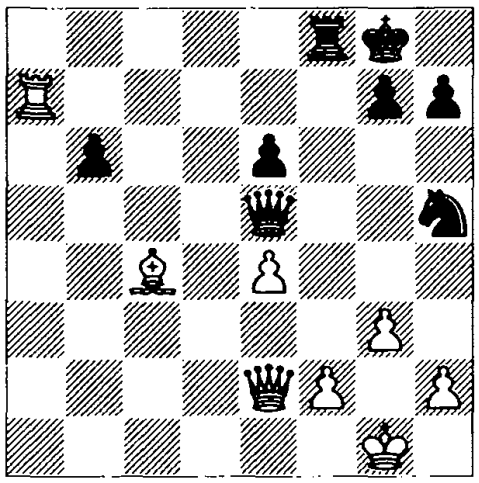
And now the point of the previous moves is revealed:

25...♖xc1! 0-1

White resigned in view of the overloading of his forces after 26 ♖xc1 d2.

The denouement is even quicker in the next example:

W



Gulko – Timman
OHRA tournament, Amsterdam 1987

Here too, the stronger side found a forced win:

25 ♖e7! ♖f6 26 ♗xe6+! ♔f8

Taking the bishop is bad: 26...♖xe6 27 ♕c4, but what did White have in mind after the text-move?

27 ♕d1!!

Here is the answer. I should add that White's splendid idea required accurate calculation. For example, after 27 ♕d3? Black has the following counter-chance: 27...♕a1+ 28 ♔g2 ♖xf2+! 29 ♔xf2 ♕f6+ 30 ♔e2 ♕xe7 with only an insignificant advantage to White, while in reply to 27 ♕d2? Black also has a counterblow: 27...♕a1+ 28 ♔g2 ♘f4+! 29 gxf4 ♖g6+ and White must settle for a draw by 30 ♗g4 ♔xe7 31 ♕d7+ ♔f8 32 ♕d8+ ♔f7 33 ♕d7+ ♔f8, etc.

1-0

Black resigned in view of 27...♔xe7 28 ♕d7+ ♔f8 29 ♕d8#.

What is it that unites these two fragments? Firstly: in both cases, there is a combination with forced variations. Secondly: in both we have ordinary moves (non-sacrifices, etc.), together with what can only be described as tactical blows, such as 23...♔f7! and 25...♖xc1! in the first example, and 26 ♗xe6+! and 27 ♕d1!! in the second.

The same picture can be seen in innumerable other games. Almost always, with very rare

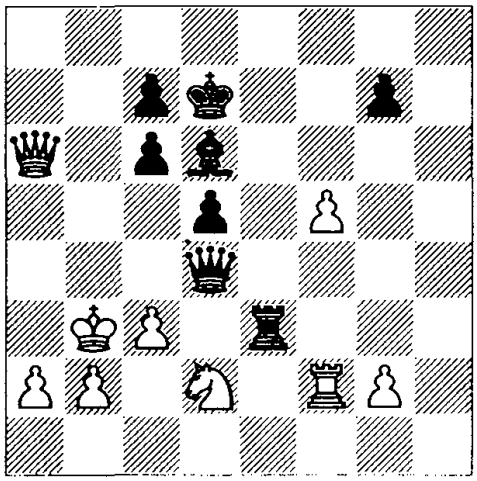
exceptions, we see as part of the calculation of variations ordinary moves and tactical blows combined together (the exception is where one calculates a sequence of solely ordinary moves, but this is rare).

We may summarise what we have said in a different way: *in chess, tactics and the calculation of variations are inseparably connected.*

It is for precisely this reason that in chess literature, tactics and calculations are frequently confused with one another, which can lead to misunderstanding and can deflect players from the correct path.

At the same time, for all their close connection, there is a difference between tactics and calculation of variations. We have already discussed in detail the elements which distinguish tactics from normal moves, and it is also useful to appreciate the difference between calculation and tactics. Firstly, it will be useful to look at some examples which illustrate the important role that calculation plays in chess. Although this should already be clear enough, it never hurts to re-emphasize such things.

W



Z. Almasi – Winants
Olympiad, Calvia 2004

In this position, White has an extra pawn, but he has to solve several problems: meeting the opponent's direct threats, neutralizing the activity of his pieces, and securing the position of his own king. In other words, we have before us a position which requires accurate calculation of all the details and the choice of the correct continuation on the basis of this calculation – the standard task fulfilled by calculation of variations. Whether due to time-trouble or for some other unknown reason, White failed to cope with this task:

31 ♖e2??

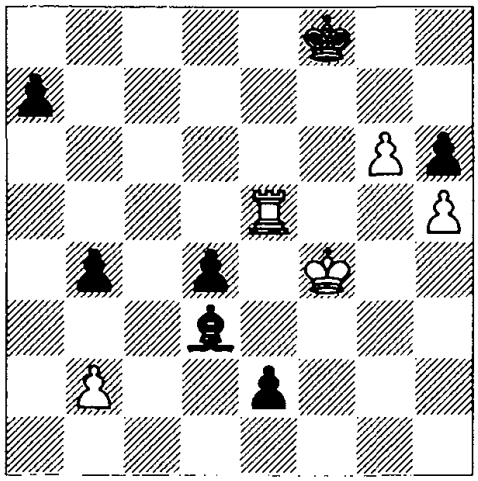
The tempting 31 ♕a4?! is also a mistake, due to 31...♖xc3+ 32 bxc3 ♕xf2. The only move that meets all of the requirements of the position is 31 ♕f1!. Then after 31...♗b4 (31...♗e5 allows 32 ♔c2! ♕a4+ 33 ♔b1, when White has achieved everything we spoke about at the start of this analysis) 32 ♘b1 (only move) 32...♕b6 33 ♔c2 ♗c5 34 ♖f3 White gradually beats off his opponent's pieces and can hope to exploit his extra pawn. But all of this is now just a case of 'if only...', as after the text-move there followed a terrible blow:

31...♕g4!! 0-1

The game ends with an abrupt knockout, in view of the continuation 32 ♘f3 (32 ♖xe3 ♕d1#) 32...♕c4+!.

In the following example, events are somewhat more complicated.

B

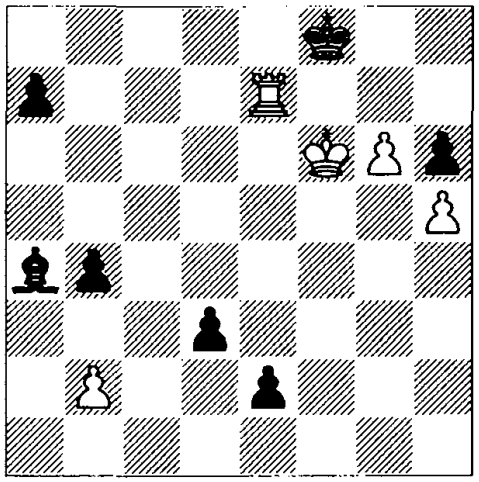


Nakamura – Ibragimov
USA Ch, San Diego 2004

The experienced grandmaster Ildar Ibragimov had outplayed his young opponent in a long struggle, but very often, there is a significant distance between 'outplaying' and 'beating', and this distance can only be covered by means of calculation. Nobody can manage

without calculation in chess, and it is precisely calculations and tactics which decide most games. It is easy to see that in this sharp and obscure position, Black has several options, and that all of them will lead to complicated variations, requiring accurate and deep calculation. The strongest move was 48...♗b5!!, controlling e8 and preparing to cover d1 too. The critical line then runs 49 ♔f5 (49 ♔f3 loses to 49...d3) 49...d3 50 ♔f6 ♗a4! (the immediate 50...d2? loses: 51 g7+ ♔g8 52 ♖xb5) 51 ♖e7 *(D)* (51 b3 d2 52 g7+ ♔g8 53 bxa4 e1♕ and 51 g7+ ♔g8 52 ♖d5 e1♕ 53 ♖d8+ ♗e8 also lose for White).

B



Now 51...e1♕! is the only way (51...d2?? is a terrible mistake: 52 g7+ ♔g8 53 ♖f7 and White mates), when after 52 ♖xe1 d2 Black wins. However, Black did not find this undoubtedly complicated variation, and played a different move:

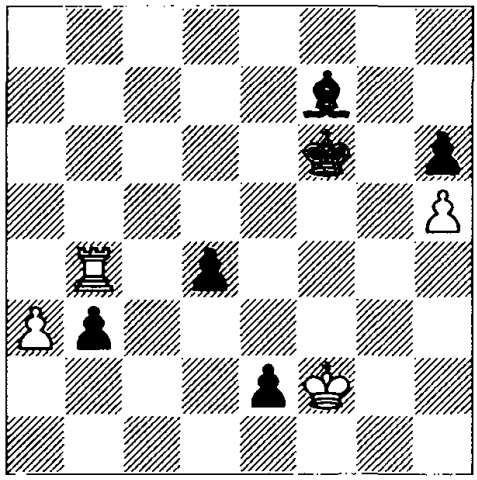
48...a5?

Now it turns out that not only is Black no longer winning, but he cannot even save the game! With no disrespect to my old and good friend Ildar, I suspect that he was affected by tiredness from the long and difficult struggle, and was not helped by the age difference between himself and his youthful opponent. With modern time-limits, the age factor affects the result of more and more individual games and, indeed, whole tournaments.

49 ♔f3 a4 50 ♔f2 a3 51 bxa3 b3 52 g7+ ♔xg7 53 ♖e7+ ♔f6 54 ♖b7 ♗c4 55 ♖b4 ♗f7 *(D)*

55...b2 56 ♖xb2 d3 57 ♔e1 ♔g5 58 ♖b4 ♗a6 59 ♖b6 ♗c8 60 ♖d6 ♔xh5 61 ♖xd3 is also losing for Black.

W



56 a4!

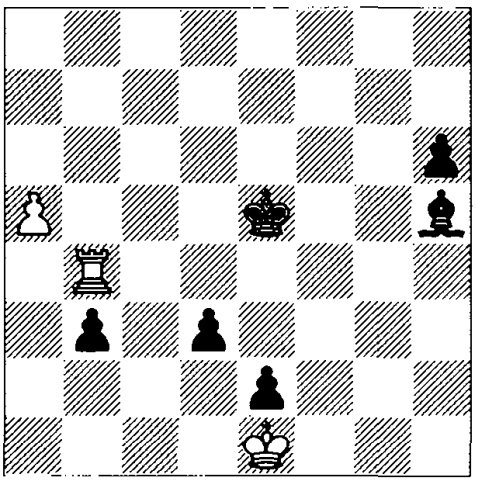
Here, the continuation 56 ♔xe2 ♗xh5+ 57 ♔d2 ♗f7 58 a4 h5 59 ♖xd4 ♔e5 60 ♖b4 was good enough to win, but White still had the energy and ability to calculate a concrete variation, which represents the most direct route to victory.

56...d3 57 a5 ♗xh5

In the event of 57...♔e5 the simplest win is 58 a6 ♗d5 59 a7 b2 60 ♔e1!.

58 ♔e1 ♔e5 *(D)*

W



59 a6!

Continuing in the same vein – direct, simple and safe.

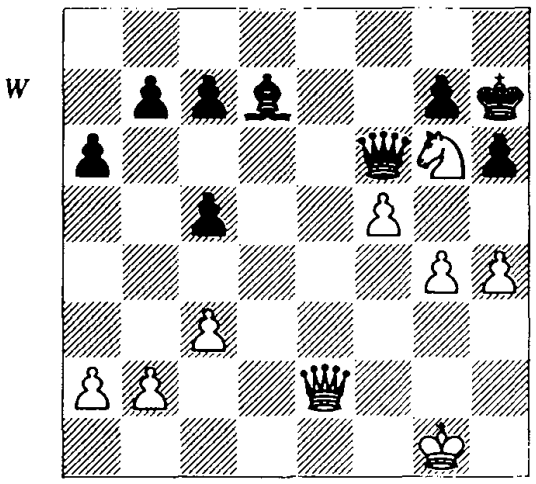
59...♗f3 60 a7 h5 61 ♖xb3 ♔d4 62 ♖b8! h4 63 ♖d8+

The immediate 63 ♔d2 wins a couple of tempi, but in this position, the 'loss of time' is irrelevant.

63...♔c3 64 ♖c8+ ♔d4 65 ♔d2 h3 66 a8♕ 1-0

An excellent illustration of the fact that very often the winner is not the player whose position is superior (or, in this case, even winning), but the one who is able to calculate better at the crucial moment.

And now a classic example of realizing an advantage by means of faultless calculation:



Fischer – Unzicker
Olympiad, Siegen 1970

Fischer begins a deeply and accurately calculated exchanging operation, aiming to exploit the endgame advantages of his extra pawn on the kingside, and the opponent's bad king position.

33 ♕e7! ♕xe7

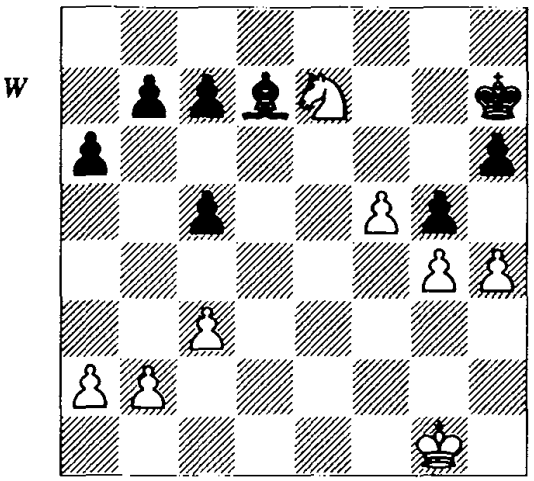
He cannot avoid the queen exchange, since 33...♗b5 34 ♕xc7 ♗e2? 35 ♕c8 mates.

34 ♘xe7 g5 *(D)*

Otherwise White advances his own pawn to this square, and then wins by bringing up his king.

35 hxg5!

The point. In the variation 35 fxg6+? ♔g7 36 ♘f5+ ♔xg6 37 ♘e3 ♗e6 White retains only a small advantage. From here, the play develops more or less by force and Fischer had undoubtedly calculated all of the key variations in advance.



35...hxg5 36 ♘d5! ♗c6

The attempt to create counterplay by activating the king immediately with 36...♔g7 37 ♘xc7 ♔f6 does not save Black, because of 38 ♘d5+! ♔e5 39 ♘b6!. This position is winning for White, as shown by the variation 39...♗e8!? (stronger than 39...♗c6 40 ♔f2 ♔f4 41 f6 ♗e8 42 ♘c4) 40 ♔f2 ♗f7 41 b3! ♔f4 42 ♘c4 ♗g8 43 f6 and White wins.

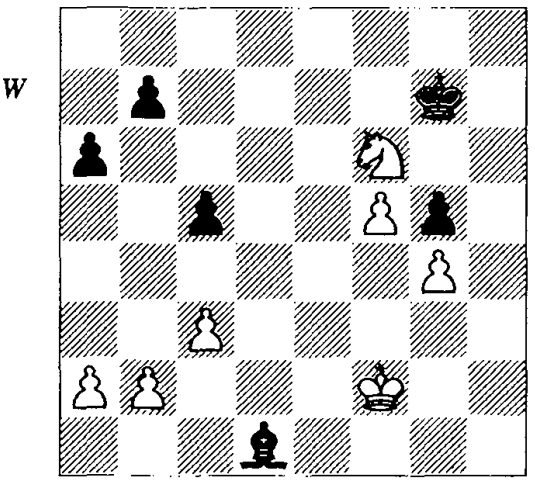
37 ♘xc7 ♗f3

And now the knight shows its capacity for delivering double attacks.

38 ♘e8! ♔h6

Events are similar after 38...♔h8.

39 ♘f6 ♔g7 40 ♔f2 ♗d1 *(D)*



41 ♘d7!

This move, and the variations flowing from it, are the basis of the whole of White's previous play. Without it, White would not be winning!

41...c4

Taking with 41...♗xg4 loses a piece: 42 f6+ ♔g8 43 f7+ ♔xf7 44 ♘e5+.

42 ♔g3 1-0

Recognizing the hopelessness of his position, Black resigned.

These last few examples convincingly demonstrate the decisive importance of calculation in determining the result of a game.

The Technique of Calculating Variations

Having completed the necessary introduction to this theme, it is now time to turn to the main issue. Firstly, as always, we must define the main terms and concepts. As I have already said, the foundation for the modern understanding of the technique of calculating variations was laid in Kotov's book *Think Like a Grandmaster*. I myself have also made a contribution to this subject, in the book *Chess Recipes from the Grandmaster's Kitchen* (Gambit, 2002). In this, I added several important points to Kotov's theory, although these were summarised in condensed form and were supported by only a limited amount of material. I now believe that it is both possible and useful to speak about this subject in rather more detail, and it was such considerations which mainly persuaded me to write the present book, devoted wholly to this vital aspect of chess.

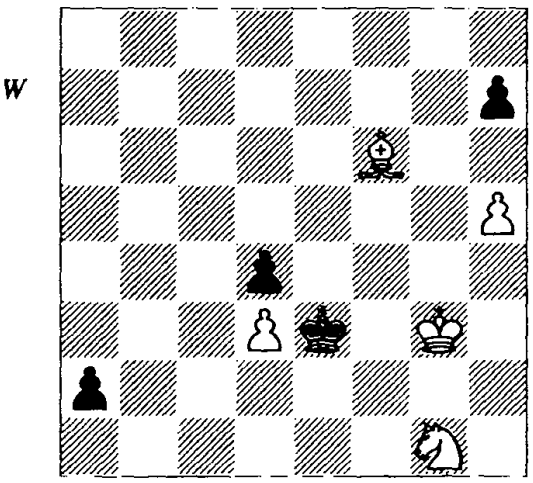
The following diagram is a position taken from a study by the Platov brothers.

How do we set about finding the solution?

First of all, let us consider what Kotov himself says about his theory of calculating variations:

"1) In beginning our calculations, we must first of all list all of the possible moves in the position – the 'candidate moves' – so as to ensure that we do not overlook some important possibility.

"2) Having done this, we then calculate each variation in turn. The order in which we do this depends on the character of the player and the characteristics of the position. Every player has his own way of doing this. One prefers to start with the most difficult lines, and only then turn to the easier ones, while another player prefers the opposite.



White to play and win

V. and M. Platov

1st Prize, *Rigaer Tageblatt*, 1909

"3) All of the possible lines can be pictured as a 'tree of variations'.

"4) The main rule in calculating is that the player must train himself during a game to go over each branch of the tree only once and must not be tempted to return to lines he has already looked at."

The above quotation, with some repetitions taken out, presents all the essential points that Kotov says about his theory of the calculation of variations, a theory which made the book in question very popular. The remainder of what he says on the subject I would regard as embellishments, which are of relatively little practical value.

In the course of what follows, I shall return to the above extract quite often. But now let us try to conduct the analysis of the study position, following the lines recommended by Kotov. That means that we must first identify the candidate moves. However, one problem here is nowhere does the originator of this theory (and I know of nothing which would refute Kotov's right to this title) say either what he means by a 'candidate move', or on what basis one should look for and select such moves.

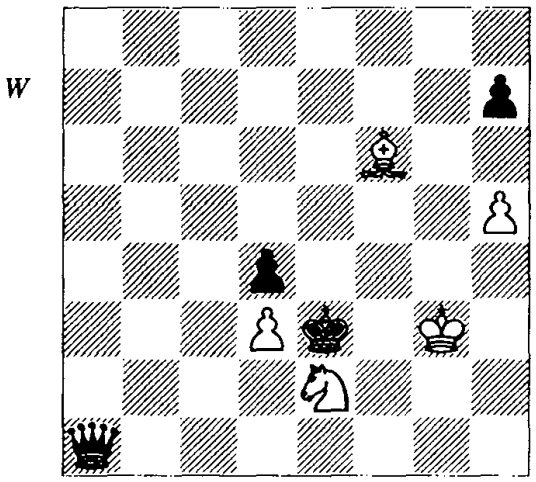
Let us think about this ourselves. I would suggest that a suitable definition is that *candidate moves are all those moves which appear logical or plausible in the given position*. So, armed with Kotov's theory, and the above definition, let us return to our endgame study. What exactly is the logic of this position? It is very simple: to combine play against the black queen, which will shortly appear on a1, and the black king. Therefore, White needs to attack the d4-square a second time, and there are only two moves which do this:

a) 1 ♘f3

b) 1 ♘e2

These moves, and only these, are therefore our candidate moves. Let us examine each in turn, deferring for the time being the question mentioned by Kotov, as to the order in which one should analyse the candidate moves. Calculation shows that in variation 'a' the position is drawn: 1 ♘f3 a1♕ 2 ♗xd4+ ♕xd4 3 ♘xd4 ♔xd4 4 ♔f4 ♔xd3 5 ♔g5 (5 h6 ♔d4 6 ♔f5 ♔d5 7 ♔f6 ♔d6 8 ♔g7 ♔e7 9 ♔xh7 ♔f7 =) 5...♔e4 6 ♔h6 ♔f5 7 ♔xh7 ♔f6! 8 h6 ♔f7. Therefore, let us look at variation 'b':

1 ♘e2 a1♕ *(D)*



We have now reached the second stage of our calculation, and with it the question: which candidate moves are there in this new position? Clearly, one is taking on d4, but we have already disposed of this. On what basis should we search for other possibilities? There are not in fact many such bases, and really only one: the somewhat restricted position of the black king. He is currently ready to slip away via d3 and e2, while at the same time, there is the threat of a check on e1. From what has been said, there is only one idea, that is, only one candidate move.

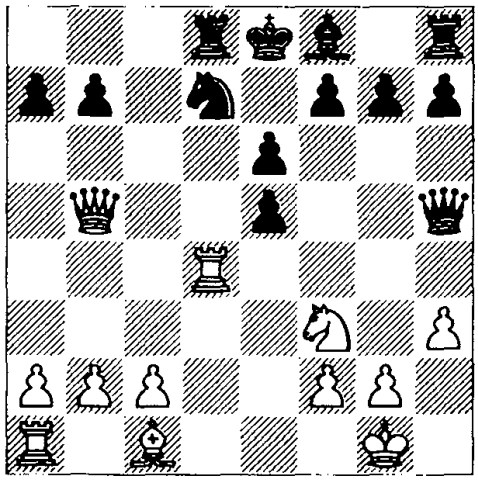
2 ♘c1!! ♕a5

The other variation 2...♕xc1 3 ♗g5+ ♔xd3 4 ♗xc1 ♔c2 5 ♗f4 d3 6 ♔g4 d2 7 ♗xd2 ♔xd2 8 ♔g5 ♔e3 9 ♔h6 ♔f4 10 ♔xh7 ♔g5 11 h6 ♔f6 12 ♔g8 leads to a win for White by one tempo. He wins even more simply after 2...h6 3 ♗e5 ♔d2 4 ♘b3+. But now everything is decided by the 'fork' motif:

3 ♗xd4+!

The black queen is lost and the problem is solved.

Let us try the candidate-move technique on another example:



Malakhov – Areshchenko
Moscow 2005

Here too the logic of the position is very simple – the black king is trapped in a dangerous position in the centre. Black's Achilles' Heel is the d7-knight – once it is gone, his position is destroyed. In such positions, time is of the essence (see my book *How to Play Dynamic Chess*; Gambit, 2004). White therefore needs to get his knight to e5 as quickly as possible, but the black queen currently prevents this. There are two means by which to drive the queen away, either by 16 g4, or firstly taking the d7-knight with the rook, and only then attacking the black queen. Testing out the variations, we see that after 16 g4

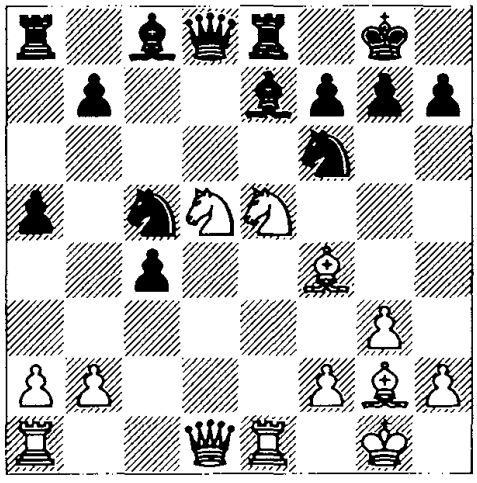
♕xh3 17 ♖xd7 (it turns out that the immediate 17 ♘xe5?! gives the opponent a precious breathing-space, and he can switch to a counter-attack by 17...a6 and after 18 ♕a4? ♗c5! 19 ♖xd7 ♕g3+ 20 ♔h1 ♕h4+ he even wins: 21 ♔g2 ♕xf2+ 22 ♔h3 ♕f1+ 23 ♔g3 ♗f2+ 24 ♔f4 {only move} 24...♗g1+ 25 ♘f3 {only move} 25...♖xd7; this, incidentally, is entirely logical: one should never relinquish the initiative in such positions!) Black also has his say: 17...♕xg4+ 18 ♔f1 ♕h3+ and White must repeat moves by 19 ♔g1 ♕g4+ in order to avoid something worse. Such an outcome would be a serious letdown from the initial position, which must be regarded as winning for White. Therefore, we must lay 16 g4 to one side and calculate the alternative idea. Here everything is in order:

16 ♖xd7! ♖xd7 17 g4 1-0

Black resigned in view of 17...a6 (17...♕xh3 18 ♘xe5) 18 ♕xd7+!.

The benefit of being well acquainted with the basic principles of calculating variations lies not only in the fact that it allows the player to find hidden possibilities, but also that it helps him to avoid unpleasant surprises from his opponent. The following example shows the kind of unpleasantness which can befall even a very strong player:

B



Gelfand – Ki. Georgiev
Olympiad, Calvia 2004

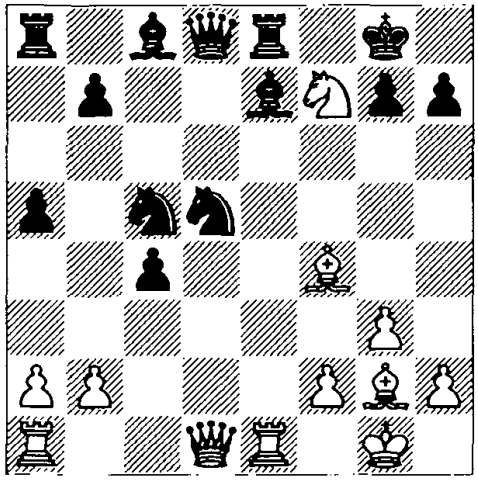
Black's position appears solid enough, and he even has an extra pawn, but the white knights and bishops, supported by the queen and rooks, are powerfully placed in the centre and their influence should not be ignored. Despite this, the experienced Bulgarian GM, feeling sorry for his dark-squared bishop, one might say, played carelessly:

15...♘xd5?!

15...♗e6! is significantly stronger, both developing and strengthening his position, with excellent play for Black. Now, however, as a result of his tactical oversight (and note that Black has not put anything *en prise* – on the contrary, he has given White the chance to do so!), Black's position suddenly takes a major turn for the worse, and he faces new and difficult problems.

16 ♘xf7! *(D)*

B



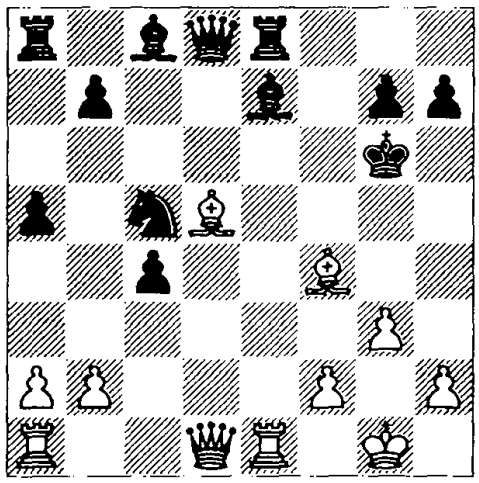
This blow clearly came as a surprise to Black, because it was immediately followed by a further mistake, which proved decisive.

16...♔xf7?

This kind of turn of events is typical. When a player is suddenly confronted with unexpected problems, he frequently loses his head, just at the moment when he needs to make a critical decision. 16...♕b6? also leads to defeat: 17 ♗xd5 ♗e6 18 ♕h5! ♖f8 19 ♖xe6! ♘xe6 20 ♖e1 ♖xf7 (20...g6 21 ♕h6!) 21 ♖xe6!. But he had an excellent counter-blow, pointed out by Maxim Notkin: 16...♘e3!. Then after 17 ♕xd8! (17 ♘xd8? is bad: 17...♘xd1 18 ♖axd1 ♘d3! favours Black) 17...♗xd8 18 ♘d6 ♘d3 19 ♖xe3 ♖xe3 20 ♗xe3 ♗e6! Black has counterplay, although White's chances are still superior.

17 ♗xd5+ ♔g6 *(D)*

Black loses immediately after 17...♔f8 18 ♕h5 ♗e6 19 ♖xe6, while he is also badly off following 17...♗e6 (17...♘e6 is equivalent) 18 ♕h5+ ♔g8 19 ♖xe6 ♘xe6 20 ♗xe6+ ♔h8 21 ♗f5.



Now White's attack continues unstoppably.

18 ♖e5! ♗f5

18...h6 loses by force: 19 ♕h5+ ♔h7 20 ♗f7! ♖f8 21 ♕g6+ ♔h8 22 ♗xh6 and White breaks through.

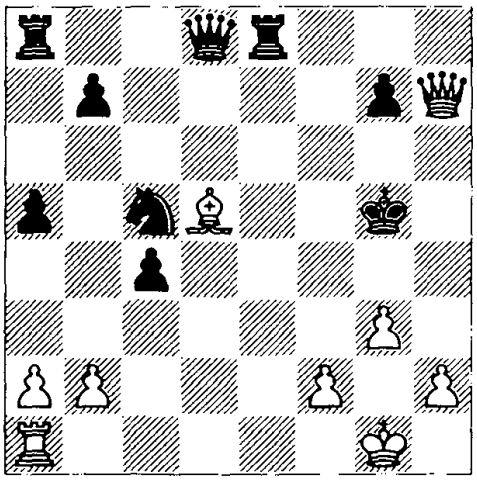
19 ♖xf5! ♔xf5 20 ♕h5+ ♗g5

Or: 20...♔f6 21 ♕g5#; 20...g5 21 ♕xh7+ ♔g4 22 f3#. Objectively, Black should resign, but he was probably still in shock at the unexpected turn of events.

21 ♕xh7+ ♔f6

Or 21...g6 22 ♕h3+! ♔f6 23 ♗xg5+ ♔xg5 24 ♕h4+ ♔f5 25 ♕f4#.

22 ♗xg5+ ♔xg5 *(D)*



We have before us a nice training exercise on the calculation of variations.

23 ♗f7

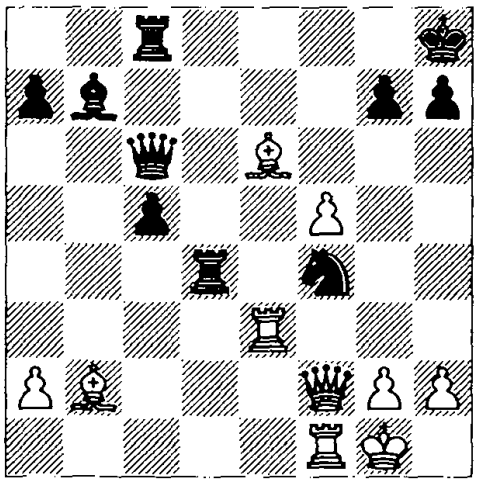
Instead of the text-move, White had such possibilities as 23 f4+ ♔f6 (23...♔g4 24 ♕g6+ ♔h3 25 ♕f5#) 24 ♕h4+ ♔g6 25 f5+ ♔xf5 26 ♕f4+ ♔g6 27 ♗f7+ ♔h7 28 ♕f5+ mating, or 23 ♕xg7+ ♔f5 24 ♕f7+ ♔e5 (24...♕f6 loses the queen: 25 g4+ ♔e5 26 ♖e1+) 25 ♖d1 ♘d3 (again 25...♕f6 loses the queen: 26 f4+ ♔f5 27 g4+; White also wins after 25...♖f8 26 f4+ ♔d6 27 ♗f3+ ♘d3 28 ♕xc4 ♕b6+ 29 ♔h1) 26 ♗xc4 with a winning position.

23...♕d6

Or: 23...♕f6 24 ♕h5#; 23...♔f6 24 ♕g6+ ♔e7 25 ♖e1+.

24 ♕xg7+ ♔f5 25 ♗xe8 1-0

It is clear that Black's troubles in this game all stemmed from the choice of candidate moves, both for himself and his opponent. This conclusion seems obvious enough, but let us first look at another example.



Harikrishna – Shabalov
Olympiad, Calvia 2004

Before us we have a sharp position in which both sides' forces are already engaging one another, and each has his own threats. In such situations, calculation must be the basis of one's play. Black does not have much choice. It is obvious that taking the bishop is bad for him, while moving the rook away is also not great; for example, 26...♖cd8? 27 ♗xd4 cxd4 28 ♖g3 and White simply has an extra exchange.

It turns out that the only square for the rook is 26...♖f8; in this case, after 27 ♕g3 ♘h5 28 ♕g5 ♖d2 29 ♖ef3 ♖xb2 30 ♕xh5 h6 the position is again extremely unclear, but Black's chances should certainly not be worse. Instead, Black decided not to waste time and played...

26...♘xg2? 27 f6!

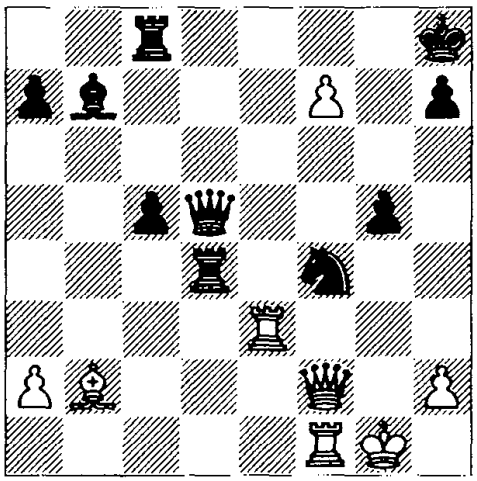
Black had missed this reply. It is important to note that this is one of only two possibilities (candidate moves) for White. The other, 27 ♗xd4, only leads to a draw after 27...♘xe3 28 ♗xg7+ ♔xg7 29 ♕g3+ ♔f8 30 ♕g8+ ♔e7 31 ♕g5+ ♔d6 32 ♕g3+ ♔e7 33 ♕g5+, etc. The text-move should result in a forced win.

27...g5

27...♘xe3 28 fxg7+ ♔xg7 29 ♕f6#.

28 f7 ♘f4 29 ♗d5 ♕xd5 *(D)*

W



30 ♗xd4+?!

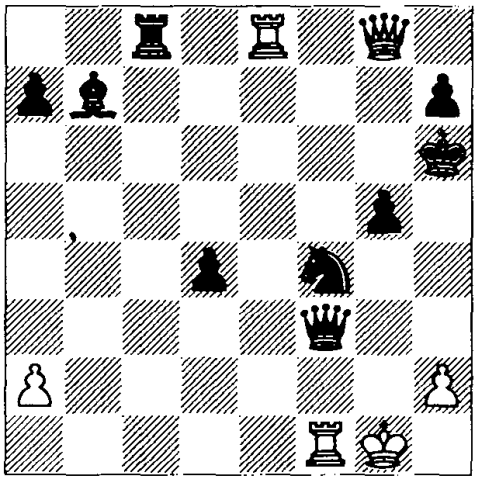
But now, when almost home and dry, White slips up, most probably due to time-trouble. It seems that he miscalculated a complicated line, although even so, he has not actually thrown away the win, merely made it more difficult. The clearest and most direct way to win was 30 ♖e8+! ♔g7 31 f8♕+ ♔g6 and now an important element: 32 ♕c2+! ♔h5 (mate also follows after 32...♖d3 33 ♕g7+ ♔f5 34 ♕xd3+! ♕xd3 35 ♖e5+ ♔g4 36 ♖xg5+ ♔h3 37 ♕h6+ ♘h5 38 ♕xh5#) 33 ♕xh7+ ♔g4 34 ♖xf4+! ♖xf4 35 h3+ ♔g3 36 ♖e3+ ♖f3 37 ♕xf3+ ♕xf3 38 ♗e5#. Now (the significance of this 'now' will become apparent later) we can see that the preliminary capture on d4 deprives White of the possibility of the check on c2. Now Black is still alive and has some hopes.

30...cxd4 31 ♖e8+ ♔g7 32 f8♕+ ♔g6 33 ♕f3

The only move.

33...♕xf3 34 ♕g8+ ♔h6 *(D)*

W



35 ♖e6+??

And Black's hopes are realized! White commits a serious error. After 35 ♖xf3 (only move) 35...♖xe8 36 ♕xe8 ♗xf3 it would not be too difficult to realize White's material advantage. Now the elementary 35...♘g6 wins for Black! Instead, he played an incredible move:

35...♔h5??

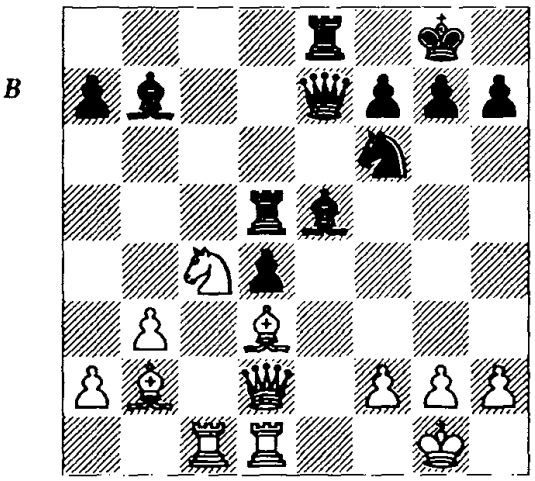
We can see how extreme must have been both sides' time-trouble!

36 ♕xh7+ ♔g4 37 ♖xf3 ♗xf3 38 ♕d7! 1-0

Let us now draw some conclusions. Both the preceding example and this last one are marked by serious one-move oversights, committed by strong grandmasters. Even though time-trouble played its part in the last example, it remains the case that in both positions, the mistakes were the result of overlooking candidate moves for the opponent. This only goes to show that even for players of the highest rank, training in the technique of candidate moves can bring dividends.

Jumping ahead, I must now touch on the subject of the fourth point in Kotov's programme. I plan to say more about this towards the end of the book, but it is impossible to discuss the next important element of the calculation of variations without touching on Kotov's fourth point.

The issue is that in practice, it is not always possible to follow this rule of Kotov's absolutely. Without going into details at this stage, let us look at an excellent example:



Spassky – Tal
Montreal 1979

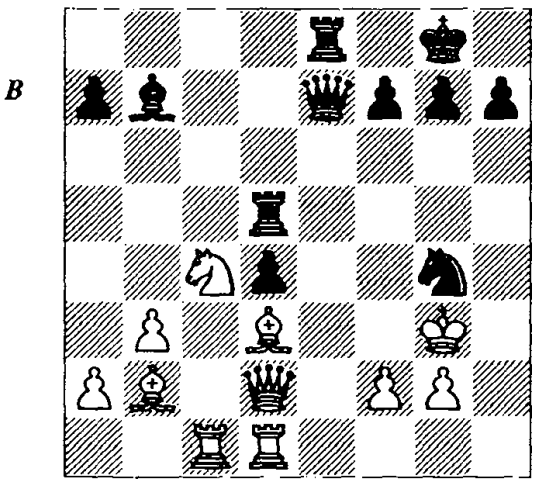
Black struck with the obvious and standard blow:

20...♗xh2+

It is impossible to imagine Tal refraining from such a move, so we must assume that Spassky invited it deliberately. It seems that somewhere along the line, he was too clever for his own good.

21 ♔xh2

This is the moment which most interests us. Black has two candidate moves: the knight check on g4, or the rook check on h5. Let's assume that Black begins by examining the knight check, since this is the most common follow-up to the bishop sacrifice in such positions, whereas the rook is not often already on the fourth rank. So, 21...♘g4+ 22 ♔g3 *(D)*.



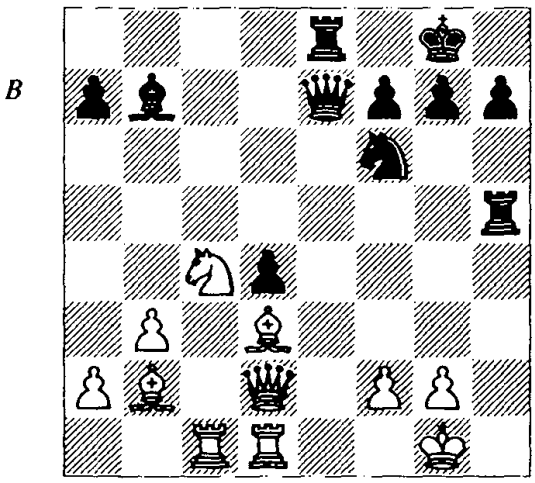
This is the move we are interested in. If the king goes instead to g1, then after 22...♖h5 we reach the same position as in the game. But now Black has two options: either to stick with Kotov's categorical recommendation and set about calculating the complicated variations which arise after 22...♖g5 23 f4 ♘e3+ 24 fxg5, or instead merely to *register* (a useful term!) in his mind the fact that this line is complicated and unclear, and to defer any further examination of it for the present, switching instead to the second candidate move. Maybe that will turn out to be simpler and more convincing....

21...♖h5+!

This does indeed prove to be the case.

22 ♔g1 *(D)*

Now after 22 ♔g3 the problem is solved by 22...♘e4+ 23 ♗xe4 ♕h4+ 24 ♔f3 ♕xe4+ 25 ♔g3 ♕h4#.



22...♘g4! 0-1

White resigned in view of the variation 23 ♖e1 ♖h1+ 24 ♔xh1 ♕h4+ 25 ♔g1 ♕h2+ 26 ♔f1 ♕xg2#.

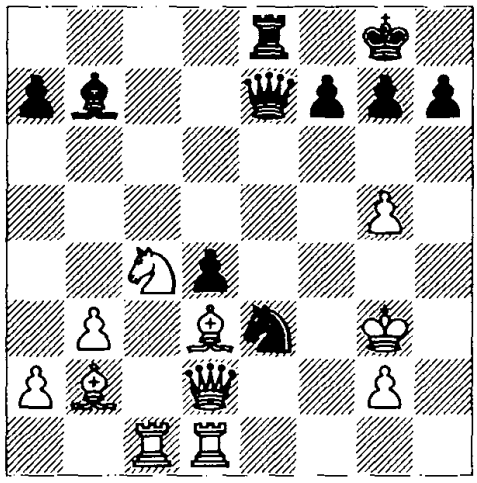
As we see, Black's task turns out to be fairly easy.

Now the mysterious 'important element in the technique of calculation', which I spoke about earlier, is clear. It is the recommendation, or if you prefer the rule, that *if in the process of*

calculating candidate moves, one of them turns out to lead to complicated and unpredictable consequences, then it makes more sense to put that variation aside for a moment, and to examine other candidate moves. That way, if you find amongst them something which is clearer or stronger, such as was the case in the above example, you save yourself time and effort, which can be valuable later in the game. On the other hand, if you do not find anything else, you can return to the first line and concentrate all your efforts on it, without other distractions. This obviously offers practical advantages.

But since we are dealing with the theory of the calculation of variations, it will certainly be useful to return to the variation that we put to one side in Spassky-Tal, and to examine it in more detail, to see whether it really is that complicated and whether objectively it leads to a win for Black. This was where we got to:

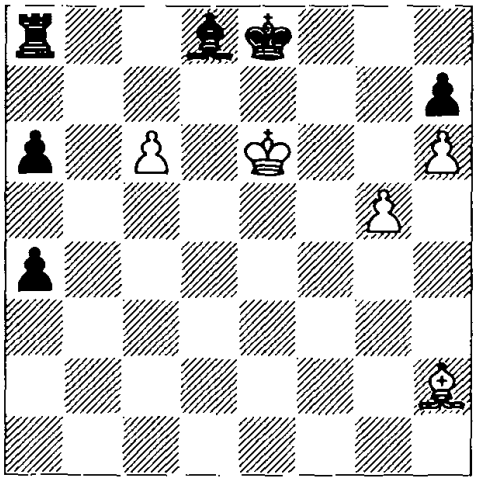
B



Even Black's first move is not obvious. I shall quote here only the main variation, without boring you with all the details: 24...♕c7+! 25 ♘d6 (25 ♔h3 ♗c8+ 26 g4 ♗xg4+ 27 ♔h4 ♕f4 –+) 25...♕xd6+ 26 ♔h3 (26 ♔f2 ♘g4+ 27 ♔f1 ♕h2 –+) 26...♗xg2+ 27 ♕xg2 ♕d7+! 28 ♔h2 ♘xg2 29 ♔xg2 ♖e3! –+. As we see, although objectively this line leads to a win for Black, his task here is rather more complicated, and with that comes increased risk of a mistake. The golden rule is this: it always pays to make our work easier – complicating it is the opponent's job!

And to finish with, a study which I like very much, as one of the best illustrations of candidate moves. I should add that endgame studies are particularly good for studying the subject of calculation, as pointed out by the following, highly authoritative statement: "The solving of problems and studies plays an especially important role in developing a player's calculation skills" (Botvinnik). It only needs to be added that for this purpose, it is important to choose studies which feature natural, game-like positions.

W



White to play and win

V. Smyslov

Bulletin Central Chess Club USSR, 1987

The first move is clear:

1 g6

There is simply no other option, but now the main part of the study begins. Black has a considerable amount of choice, and trying to calculate in one's head such a large number of variations frequently results in confusion. For this reason, it is extremely useful to follow a system that makes it easier to analyse and remember the numerous variations encountered. One question is in which order to examine the candidate moves. We can recall that Kotov's answer to this question (point 2 in his system) was something along the lines of "In some sort of order, however you wish or think fit!". However, one can hardly accept this as sufficient, and we therefore need to think about this ourselves. And here comes my second recommendation,

as an addition to Kotov's system: *where there is a significant number of candidate moves, and no obvious grounds on which to separate them, it is useful to do so by reference to the pieces which can make these moves.* Thus, in the present position, the candidate moves consist of:

One king move:

a) 1...♔f8. Then 2 gxh7 wins immediately.

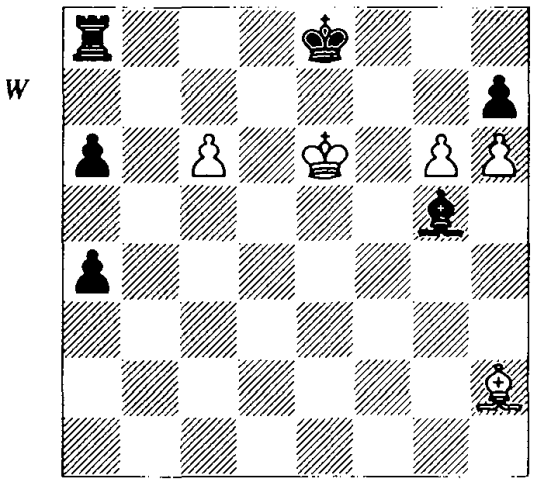
Two rook moves:

b) 1...♖a7. Now 2 g7? is bad due to 2...♖e7+, but 2 c7! wins, with the variations 2...♗xc7 3 g7 +– and 2...♖xc7 3 ♗xc7!, when the pawn queens.

c) After 1...♖c8, 2 c7! is again correct (e.g., 2...hxg6 3 cxd8♕+! ♔xd8 4 h7 ♖c6+ 5 ♗d6 +–). White's other candidate moves are all wrong: 2 g7? ♖xc6+ 3 ♗d6 ♖xd6+ 4 ♔xd6 ♔f7 –+; 2 gxh7? ♖xc6+ 3 ♗d6 ♖xd6+ 4 ♔xd6 ♗f6 –+.

There are also several candidate moves with the bishop:

d) First, let us try 1...♗g5 *(D)*.



Now it becomes clear (although perhaps not immediately) that 2 g7? is bad because of the resource 2...0-0-0!. Similarly with 2 gxh7? 0-0-0! 3 ♗e5 a3 4 c7 ♖e8+ –+. Attempting to stop Black castling by 2 ♗c7? also fails to 2...♗xh6 –+, as does 2 c7? ♗xh6 –+. After some thought, one finds the main point of the study, the miracle resource 2 ♗b8!!. Now Black is lost; e.g., 2...♖xb8 (3 c7 is threatened) 3 gxh7 ♔d8 4 h8♕+ ♔c7 5 ♕e5+ and White wins.

Other bishop moves lead to similar variations:

e) 1...♗a5 (1...♗b6 is met in the same way) 2 ♗b8!! ♔f8 3 gxh7 ♗c3 4 c7.

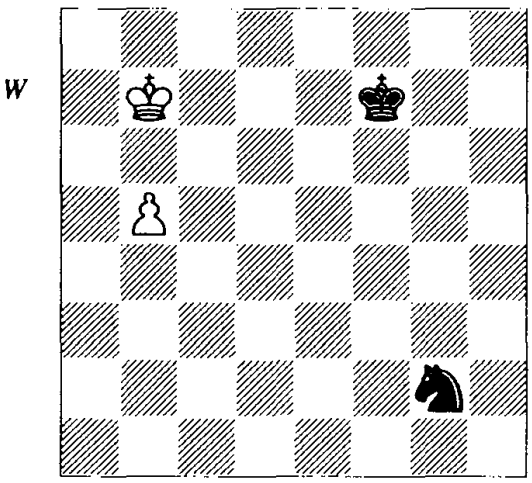
And the final candidate move is a pawn move:

f) 1...hxg6 2 h7! (the right idea does not always work if played in the wrong order! Thus, this time 2 ♗b8? is bad because of 2...♔f8! – another illustration of the importance of candidate moves) 2...♗f6 (and now yet again...) 3 ♗b8!! ♖xb8 (3...♗h8 4 c7) 4 ♔xf6.

As we see, this last example is not only an excellent example of calculating variations, but also opens up some new aspects of the subject. But the topic is by no means exhausted, because we have not yet finally resolved the question of the order in which to consider candidate moves and their calculation. There is still more to discuss. But in order to continue the discussion most profitably, it is necessary first to consider another extremely important aspect of the problem of calculating variations.

What to Do Before Starting to Calculate

In the section 'tactics', we have already referred to this issue, and it is now time to look at it in more detail. It is the search for the logic which precedes calculation. We shall start this search with the following study:



White to play and win

F. Prokop

Casopis Ceskoslovensky Šach, 1925

Consideration of the essence of the position, which we must carry out before starting calculation, is very important and has great *practical significance.*

The logic of the situation looks simple enough: White must manoeuvre his king so as to avoid a knight fork. However, given that Black has quite a few such forks in this position, it makes sense first to look for the key idea, which will point us towards the right variation, rather than going through them all at random. This idea is based on the fact that the moves of the white king and the black knight are interconnected, i.e. the correct knight move in each case depends on where the white king goes. It follows from this that it is helpful to White if he can force his opponent to commit himself first, and only then choose a square for his king. And given that White clearly needs at some point to advance his pawn, the first candidate move is obvious:

a) 1 b6.

Are there any other ideas? There is one more: is it possible simply to prevent the knight from getting near the passed pawn? This suggests the second candidate move:

b) 1 ♔c6, going to meet the knight.

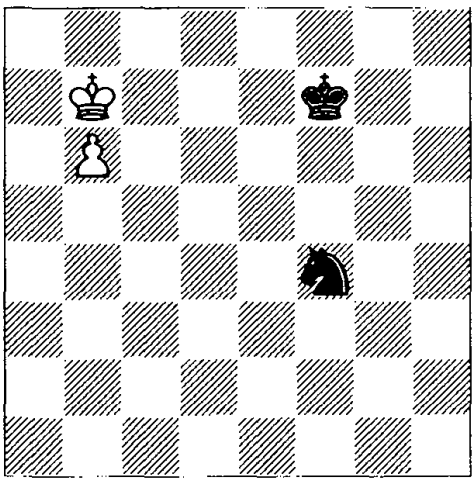
There are also a number of other moves, which if one strictly follows the Kotov formula, should be included as candidate moves. But thanks to having an exact formulation of what we mean by candidate moves, we are able to limit our examination to just two. The advantages of this are obvious: the player saves time and energy, and can concentrate only on what is essential.

It is clear from this that defining our concepts precisely has not only theoretical, but also practical benefits. It is also not the first time that we have detected inaccuracies or incompletenesses in Kotov's formula, and this in turn means that we should examine some of his other points carefully as well.

Now let us test our conclusions on this practical example. We shall start with the more obvious and simple variation 'b': 1 ♔c6 ♘e3 2 ♔c5 ♔e7 and the pawn is stopped. Draw.

As one might therefore expect, variation 'a' 1 b6! proves more complicated. Here we must consider two candidate moves for Black, both knight moves. In reply to 1...♘e3 only 2 ♔a6! wins (the reader can check the other moves himself): 2...♘d5 3 b7. Therefore, now we examine 1...♘f4 *(D).*

W



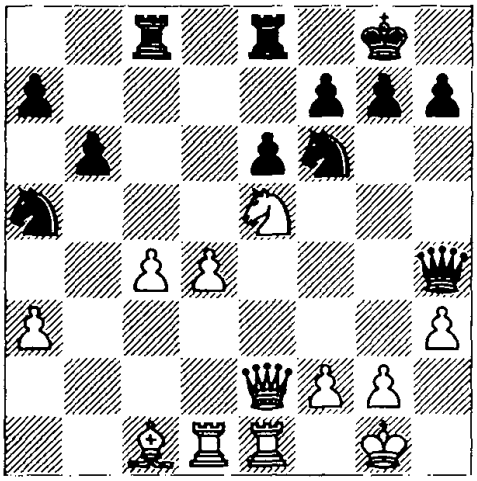
In this position, the only correct move is 2 ♔c8! ♘d5 3 b7 ♘b6+ (or 3...♘e7+ 4 ♔d7 and again the pawn cannot be stopped) 4 ♔d8 and the pawn queens.

Now let us prove by analysis the correctness of the general reasoning given above. It turns out that after all the other possible first moves, not supported by any logic, but just picked out one by one, computer-fashion, Black is able to defend: 1 ♔c7 ♘e3 =; 1 ♔a8 ♘e3! 2 b6 ♘d5 3 b7 ♘b6+ =; 1 ♔c8 ♘e3! 2 b6 ♘c4 =; 1 ♔a7 ♘e3! 2 b6 ♘c4 3 b7 ♘a5 =; 1 ♔a6 ♘f4! 2 b6 ♘e6 =.

This leads to an important conclusion: *starting concrete calculation without any preliminary logical analysis is a mistake, because it leads to confusion and wastes both time and energy.* And the practical player cannot permit himself such an 'extravagance'.

The following example not only comes from a classic game, but is also very little-known, although without doubt the commentary is of the very highest class. It comes from Botvinnik's excellent book *The return match Alekhine-Euwe.* This was published in 1939, but only in Russian, and only in a limited edition of 5,000 copies. It has recently been reissued, although again only in small numbers.

W



Alekhine – Euwe
World Ch (game 10), The Hague 1937

This position resulted from a serious mistake by Black on his previous move, when he played 22...♖d8-e8?. This move deprived his knight of its only retreat-square, thereby setting up the motif for a combination. Trying to realize this motif, Alekhine replied:

23 g4?

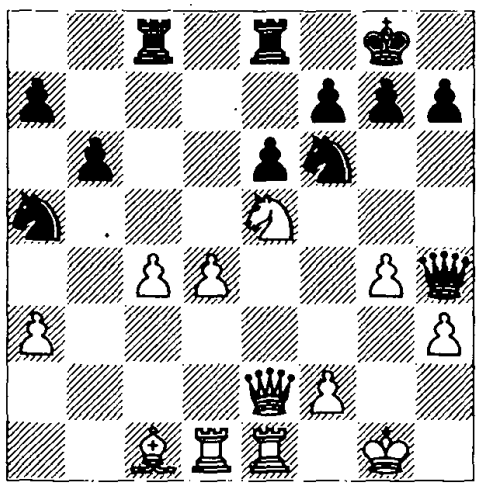
Most annotators awarded this move an exclamation mark, and only Botvinnik identified it as a mistake and showed why! He also showed that attempting to prepare this important pawn-thrust by 23 ♔h2? is also an error, after which there follows 23...h6 24 g3 ♕h5 25 g4 ♕h4 and now trying to win material by 26 ♘f3?! ♘xg4+ 27 ♔g2 ♕h5 28 hxg4 ♕xg4+ 29 ♔h1 ♕h5+ 30 ♘h2 ♕xe2 31 ♖xe2 ♘xc4 leads to a better position for Black.

Botvinnik also gave a classic example of a summary of the positional considerations, which should always precede the search for candidate moves. There is nothing one can add to this summary, and one only needs to learn to apply the same method. The only thing I want to say is that such logical considerations can only be arrived at by a deep and thorough consideration of the position in all its details. It frequently happens that some seemingly insignificant detail turns out to be vitally important. It is impossible to know in advance which detail this might be, and so the initial study of the position needs to be scrupulous and not overlook anything.

Botvinnik's note was as follows: "The correct move can be found on the basis of the following considerations. In order to trap the black queen on h4, White needs his pawn on g4, his knight on f3, and his h3-pawn defended. ... It is easy to see that ... if White had played 23 ♕f1!!, Euwe could have resigned. The point of the move is that after 23...h6 (there is nothing better) 24 g3 ♕h5 25 g4 ♕h4 26 ♘f3 ... White wins a tempo and the black queen is trapped." Botvinnik goes on to point out that numerous annotators of this game, including both Alekhine and Euwe themselves(!), all failed to point out 23 ♕f1!!.

We now return to 23 g4? *(D)*:

B



In the game, in answer to White's incorrect but dangerous-looking thrust, Black failed to find the correct response, which, as Botvinnik again pointed out, was 23...h6! (23...♕xh3? is bad, because after 24 ♖d3 ♕h4 25 ♔g2 ♘xg4 26 ♘xg4! ♘xc4 27 ♖h3 ♕d8 28 ♖eh1 ♕d5+ 29 f3 White has a decisive attack). Then 24 ♔g2 ♘h7 25 f4 ♕e7 leads to an unclear position. Instead, Black committed his second successive bad mistake:

23...♘c6?

White now won a piece and subsequently, the game:

24 ♔g2 ♘xe5 25 dxe5 ♘h5 26 gxh5 ♖xc4 27 ♕f3 ♖f8 28 h6 f5 29 ♕g3 ♕xg3+ 30 fxg3 ♖fc8 31 hxg7 ♖c2+ 32 ♔f3 ♖2c3+ 33 ♗e3 ♖xa3 34 ♖d7 ♖c4 35 ♔f2 ♖c2+ 36 ♖e2 ♖aa2 37 ♖xc2 ♖xc2+ 38 ♔f3 a5 39 ♗h6 ♖c8 40 ♖e7 1-0

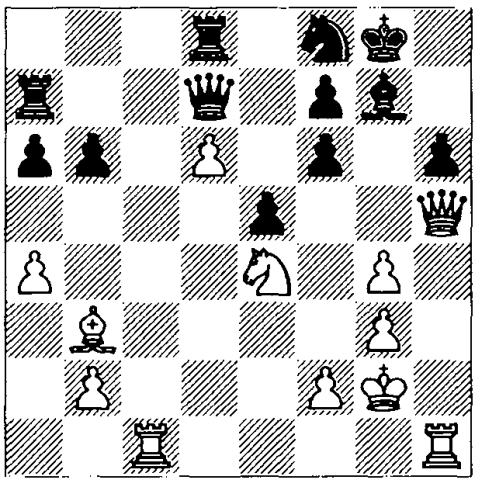
So, the importance of a preliminary logical analysis of the position before starting calculation is now clear to us. But in addition to the fact that such analysis allows us to identify all of the most important details of the position and the appropriate *direction* of our calculation, it can also help us to rank our candidate moves, which is very useful in improving the quality of our calculation. What do I mean by this? Once the survey of the position has been carried out, we can draw conclusions therefrom about the possibilities of the two sides, and can then identify their *priorities* and the *aims*, towards which each side must strive in order to improve his position (that is, to meet the demands of the position). Knowing these aims not only allows us to find candidate moves, avoiding what is unnecessary and enabling us to concentrate on the relevant points, but also helps us decide on the most *practical* order in which to consider those candidate moves, so as to economize on time and energy, which will be useful later in the game.

We have already taken the first step in this direction, by setting out the rule that *in the absence of any other obvious grounds* on which to separate the candidate moves, it is useful to do so by reference to the pieces which can make these moves.

Then we did not deal with the question of what these 'other obvious grounds' might be, but now we can say that these are factors which are revealed as a result of the *logical analysis* of the position. Often this analysis allows us to identify candidate moves which not merely strengthen the position, or prepare some planned action, but which *immediately and directly strive towards the required aim*. Such moves must be regarded as having 'other obvious grounds' for being looked at first. Moves which lead to an immediate clash of forces must also be seen in this category. In other words, *moves which lead to more or less forced developments*. Logic suggests that the chances of finding the right move amongst such moves are higher than amongst other candidate moves, and *therefore, they should always be examined first*. It is very probable that by considering the moves in this order, we shall immediately, or very rapidly, come to a decision which is sufficiently convincing as to obviate the need for further calculation. This is the practical importance of choosing the correct order in which to calculate the variations – even after the correct decision, the game is likely to continue, and the time and energy saved will be valuable later on. If the first move chosen by this method is not sufficient, then *the second should be selected on the same basis*, and so on. Sooner or later, you will strike gold.

If we compare this advice with that given by Kotov, who offers no real guidance at all on how to decide the order in which to calculate the candidate moves, I think it will be clear that the system suggested here is a significant step forward. However, words are only just words, however correct they may be. The proof of the pudding is in the eating:

W



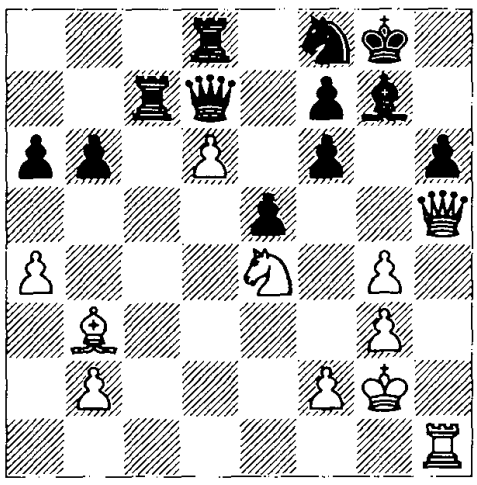
Vyzhmanavin – Novikov
USSR Ch, Leningrad 1990

There is no doubt that White has a large, even winning advantage. It is also clear that his search for a winning line should be based on the weaknesses in his opponent's position and the possibilities of his own pieces. These weaknesses are clear for all to see: the squares c7, f5, f6, f7, h6. The e7-square may also be considered a weakness, but for the moment, the white pieces cannot get at it. In addition, both black minor pieces are poorly placed. White's task seems clear: to break into his opponent's position with his forces. I say 'forces' and not 'pieces' because the d6-pawn is likely to be an important part of

White's attacking force. So which moves should be regarded as candidates, on the basis of what we have said? These include the attempts to break through immediately on the h-file: 33 g5; 33 ♕xh6; 33 ♘xf6+; the immediate 33 ♖c7 is also logical. If none of these direct moves works, then it will be time to examine quieter continuations. Since the tempting transfer of the knight to f5 does not appear possible yet, the attractive move 33 ♕f5 must be regarded as a candidate, and only if that also fails for some reason shall we turn to the less energetic and rather 'abstract', but nonetheless logical move 33 ♖hd1.

We therefore begin by analysing the most direct and sharp variations. But with which one precisely? The entry of the rook on c7, or with the kingside attacking moves? (Incidentally, as can be seen from this, another way of dividing up candidate moves is by reference to which area of the board they operate in.) Here it is difficult to give any categorical answer. One must either choose the most aggressive-looking move, or follow one's intuition, or simply choose one at random. Let us begin here with the attempts to break through on the kingside. As it turns out, these moves are easily disposed of. All of the continuations 33 g5 fxg5, 33 ♕xh6 ♗xh6 34 ♘xf6+ ♔g7 and 33 ♘xf6+ ♗xf6 34 ♕xh6 ♕xd6 (or even 34...♗g7) fail to bring White anything except material loss. Therefore, following the scheme we have suggested, we turn our attention to the entry of the rook – 33 ♖c7. In the course of our calculations, we soon see that after 33...♖xc7 *(D)* the following tactic comes to our aid:

W



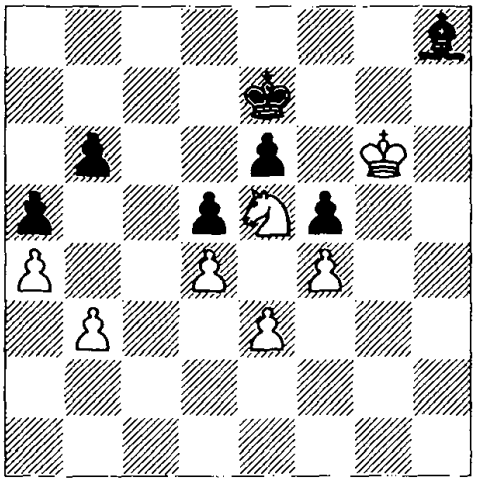
34 ♕xf7+!! ♕xf7 35 dxc7 ♖a8 36 ♗xf7+ ♔xf7 37 ♘d6+. Given the many weaknesses in Black's position, and the activity of White's pieces, it is no surprise that such a tactical possibility should exist. I would draw your attention to the fact that with 33 ♖c7 White begins a short but effective combination and we have just seen that its idea was found by the calculation of variations.

33 ♖c7!! 1-0

Black resigned, having no defence against the variation given above.

Next we shall examine an interesting ending:

W



Gelfand – Malakhov
Russian Team Ch, Dagomys 2005

Several things are obvious in this position:

1) White has a large, possibly decisive, advantage.

2) In order to win, he needs to drive away the black king and penetrate Black's position with his own.

3) The exchange of minor pieces favours White.

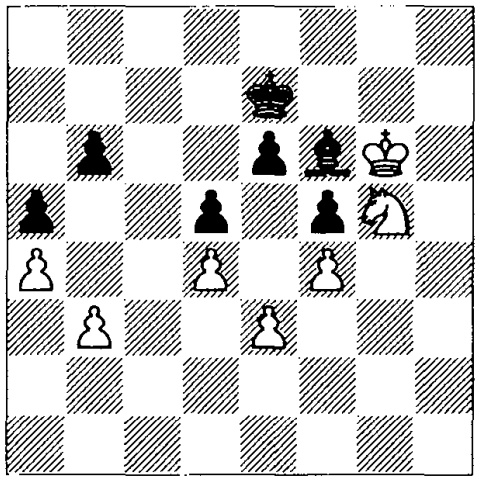
Gelfand solves the problem in forcing style, alertly spotting that if his knight gets to h5, Black's bishop will have no moves. I would suggest that the game variation was born out of this observation. I believe that this variation, *being the one which lies in the direction from where the main blow is most likely to come*, should be calculated first, and then the remaining variations become redundant. There followed:

45 ♘f7!

In fairness, it should be said that it was also possible to achieve the same result by 45 ♘f3! ♔f8 46 ♘g5, but it is more pragmatic to worry about such things in home analysis.

45...♗f6 46 ♘g5! *(D)*

B



46...♗h8

In the event of 46...♗xg5, 47 fxg5! wins.

47 ♘h7! ♔e8

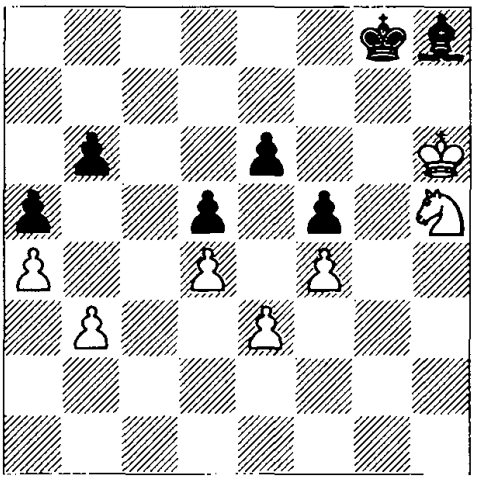
Black is in zugzwang, which is typical for such cramped and heavily simplified positions. If 47...♔d6 the key winning manoeuvre is 48 ♘f6! (White should not complicate things by playing 48 ♔f7 e5 49 fxe5+ ♗xe5 50 dxe5+ ♔xe5, with unclear consequences) 48...♔e7 49 ♘h5!.

48 ♘f6+ ♔f8

We have seen the position after 48...♔e7 49 ♘h5! before.

49 ♘h5! ♔g8 50 ♔h6 *(D)*

B



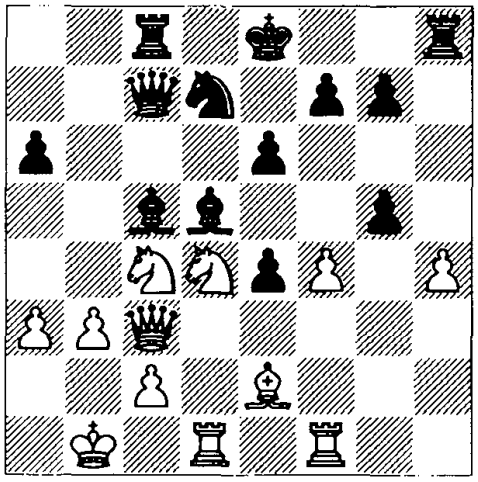
A beautiful picture of complete and utter domination. Black cannot avoid the exchange, and after 50...♔f7 51 ♔h7 ♗f6 52 ♘xf6 ♔xf6 53 ♔g8 it is all over.

1-0

White won in the most reliable way – by force! And although analysis shows other ways to win, in a game one needs to find only one safe way.

There is more on this topic in the next example.

W



Anand – Kasimdzhanov
Leon rapid 2005

This is a complicated, typical Sicilian position, in which the battle front extends over the whole board. Even so, the logic of White's position is clear enough: he has nothing to do on the queenside, where his opponent obviously has the advantage, and where he is ready at the first opportunity to go over to the attack with ...♘b6, or a capture on a3. Consequently, White needs to hurry to exploit the pluses of his own position, and his chances lie first and foremost on the kingside, especially around the squares g7 and f7, and especially, on the d-file (the squares d5 and d6). Consequently, as well as the obvious recapture on g5 in two variations, one must also consider as candidate moves the removal of the knight from d4, so as to open the queen's path to g7, and also possibly the move f5, although this idea looks extremely unclear. For this reason, we shall leave the pawn move

for the time being, and concentrate on the more natural moves. Following the system I have suggested, the first move to be examined should be a knight move from d4. But to where? It is not difficult to see that the only logical place is to f5, so that is the candidate move which we should start with, and indeed, was the move played in the game.

26 ♘f5!

It proves to be fully correct and eventually leads to a win. We shall look at the further course of the game a little later, but for the time being, we shall continue our discussion and try to take the matter further forward.

There is one other benefit, which we have not referred to before, in ranking candidate moves. This is that if we manage to identify the best move (or one of the best moves, in the rare cases when there are several equally good moves) then we can immediately, *sometimes even without calculation*, know for sure that this is the move which must be played and we can dispense with considering any other moves, thereby saving time and energy once again. And such saving, which can be so important later in the game, is one of the aims of the various thinking techniques which have been developed, including much of my advice here, and the theory of candidate moves itself. White's 26th move above is an example of this, although here it is not possible to manage without calculation of the consequences.

But even this does not end the instructive points I have to make in this regard! Let's say OK, we agree that 26 ♘f5! is certainly very strong and brings White great dividends. Since during a game, a player's time and energy are limited, it means that once he has found such a move, he can dispense with looking at other moves, because he knows that he has already found a move which will improve his position. This is certainly true of over-the-board **play**. However, after the game, there still remains the task of **home analysis**, which is an indispensable part of the process of self-improvement of every player, of whatever level. And *there is a significant difference between calculating variations during a game, and doing so in home analysis*. During a game, we need to conserve time and energy, and calculate only those variations which are essential, and we often have consciously to refuse to analyse lines which look interesting, but highly complicated and time-consuming. Such an approach is essential for practical play, where the main consideration is the result of a particular game.

But during home analysis, a player's priorities are somewhat different. Here the main consideration is the effectiveness of the training. In such a case, it is essential to analyse all those variations which may affect the course of events. So if we are analysing the game under consideration here, we do not have the right simply to restrict ourselves to the effective move 26 ♘f5!, but are obliged to check the consequences of the other candidate moves which exist in the position. As we have already said, these are the captures of the black pawn on g5. The relevant variations are as follows (I have only given the quintessential lines and their assessments; I would recommend the reader to check the lines himself):

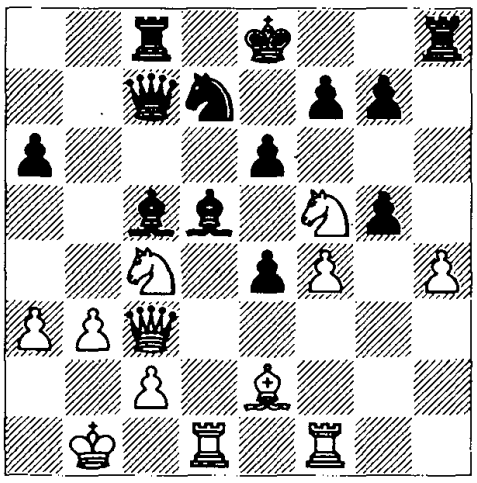
a) 26 hxg5 ♗xa3 27 ♘f5! ♗xc4 28 ♘xg7+ ♔f8! 29 ♗xc4 ♖g8! 30 ♘h5 ♘b6 with a complicated and unclear position, in which it is clear that Black has counterplay.

b) 26 fxg5 ♖xh4 27 ♘f5 exf5 28 ♖xd5 g6 29 ♖fd1 ♘b6! 30 ♕e5+ ♕xe5 31 ♖xe5+ ♔f8 32 ♖xc5 ♖xc5 33 ♘xb6 ♖c6 leads to a position which is perfectly satisfactory for Black.

From this, we can draw the conclusion that the decision taken by Anand during the game was the only way to secure the advantage.

We now return to 26 ♘f5! *(D)*:

B

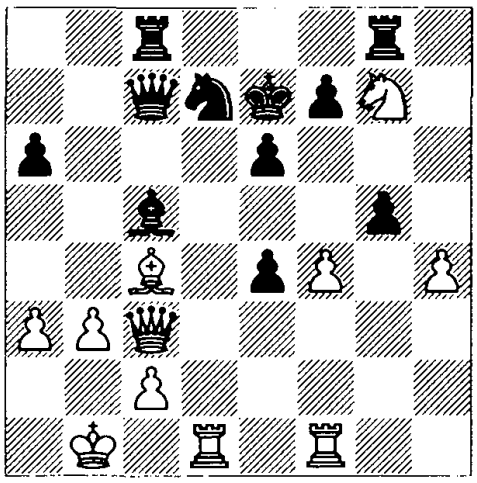


26...♗xc4?

Black fails to withstand the tension and commits the decisive error. This also underlines the correctness of the decision taken by White on his previous move. He set his opponent difficult problems and Kasimdzhanov proved unable to solve them. 26...exf5?! is also bad, due to 27 ♖xd5 f6 (27...gxf4 loses to 28 ♕xg7 ♖f8 29 ♗h5) 28 hxg5 with an undoubted advantage to White. The strongest continuation is 26...gxf4!. Then after 27 ♘xg7+! ♔f8! (this is stronger than 27...♔e7 after which 28 ♘f5+! exf5 29 ♖xd5 ♖xh4 {29...♔e6 30 ♖fd1 +–; 29...f3 30 ♗xf3 +–} 30 ♕g7! gives White a very strong attack) 28 ♘xe6+ ♗xe6 29 ♕xh8+ ♔e7 30 ♕c3! f3 (the tempting 30...♗xa3? fails to 31 ♕d2! ♗c5 32 ♕xf4) 31 ♗xf3 exf3 32 ♖xf3. This complicated position must be considered to favour White, since the black king is unsafe and White has a potentially dangerous passed pawn. Comparing these lines with those which could have followed White's capture on g5 on the previous move underlines the correctness of White's 26th move. The tempo White saved makes his attack much more dangerous.

27 ♘xg7+ ♔e7 28 ♗xc4 ♖hg8 *(D)*

W



29 hxg5!?

Although good enough, this is not the most energetic choice. 29 f5! is more clearly decisive: 29...♘e5 (after 29...e5 30 f6+ ♔f8 White wins by 31 ♗xf7! ♔xf7 32 ♕c4+ ♔g6 33 ♕xe4+ ♔f7 34 ♕c4+ ♔g6 35 ♕g4) 30 f6+ ♔f8 31 ♗xe6. Another very strong possibility is 29 fxg5! ♘e5 30 ♖xf7+! ♔xf7 31 ♘xe6, when Black can resign. This situation illustrates what we have said above. It is quite likely that, having seen a sufficiently convincing way to win the game, Anand followed the principle that one only needs one way to win a game, and did not waste time looking at other variations.

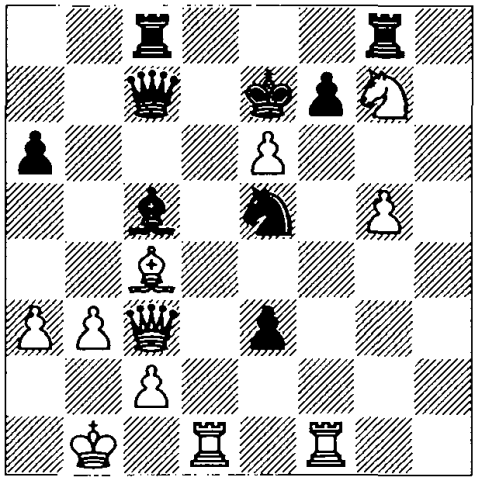
29...e3

White's task would be more complicated after 29...♗d6!?, controlling the e5-square with the bishop and making the f5 advance harder to achieve.

30 f5 ♘e5 31 fxe6!? *(D)*

31 f6+ ♔f8 32 ♗xe6 e2 33 ♗xc8 exf1♕ 34 ♖xf1 also wins.

B



31...♖xg7

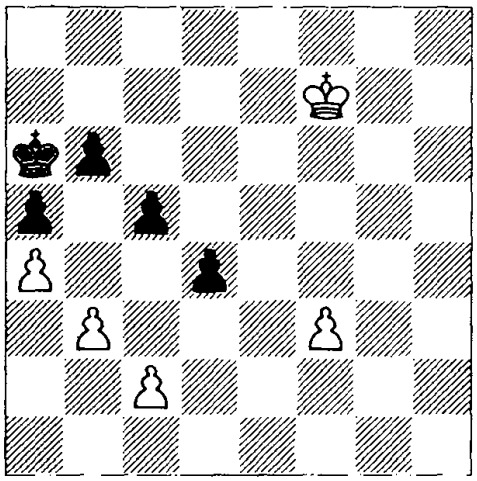
White wins beautifully after 31...e2 32 ♕xe5! exf1♕ 33 ♗xf1. Now follows an effective finish:

32 ♖d7+! ♘xd7 33 ♕xg7 1-0

It must be said, however, that the topic we have been discussing is not a simple one, and can be rather 'slippery'. When the dilemma arises of whether to analyse other candidate moves or to settle for the good move one has already found, there is always a flipside: on the one hand, by playing the move one has found, one saves time and energy, but one also runs the risk of missing something even better and thereby complicating one's task. Solving this dilemma is a matter of experience and intuition. But of course there are situations in which only one really good move exists, and once we have found this, we know that we have solved the

problem. This is what happens in the next example:

B



Zubarev – Grigoriev
USSR Ch, Leningrad 1925

Black has an active pawn-majority on the queenside, but although White's king is a long way away, he has his own counterplay in the shape of the f-pawn. It therefore comes down to a race, where every tempo is worth its weight in gold. The next few moves are therefore easy to understand:

55...b5 56 axb5+

Black wins after 56 f4 bxa4 57 bxa4 c4 58 f5 d3.

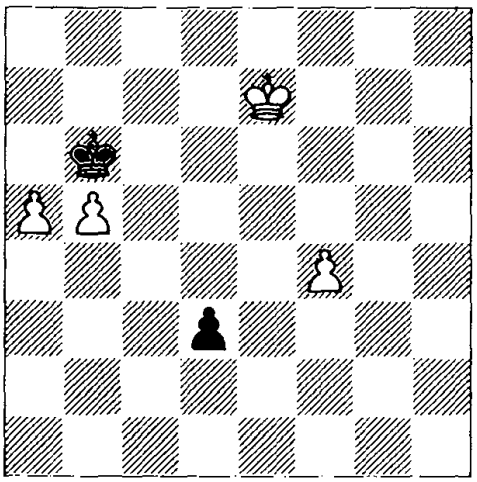
56...♔b6!?

The main point is that one can, and should, refrain from taking the pawn without any calculation. One only needs to see that White cannot queen first, and this is clear from the first glance at the position. The logic of the choice of move is simple: Black cannot manage without ...c4 or ...a4 and he does not want White to capture with check, which would cost Black a tempo in the pawn race. Even if analysis after the game were to show that Black wins even after taking on b5 (he doesn't – after 56...♔xb5? 57 ♔e6 c4 58 bxc4+ ♔xc4 59 f4 a4 60 f5 a3 61 f6 a2 62 f7 a1♕ 63 f8♕ we have a draw), there is no way that having the line with an extra tempo can be worse. However, Black can save himself some trouble by playing the even more accurate 56...♔b7!, as White then won't have the resource 61 a5+ in the next note.

57 ♔e6

After 57 f4 c4 58 bxc4 a4 59 f5 a3 60 f6 a2 61 ♔e8 a1♕ 62 f7 ♕e1+ Black wins. More problems are posed by 57 ♔e7! a4! 58 bxa4 c4 59 f4 d3 60 cxd3 cxd3 and now there is the blow 61 a5+! *(D)*.

B



61...♔xa5! (the point lies in 61...♔xb5? 62 a6 ♔xa6 63 f5 d2 64 f6 d1♕ 65 f7 ♕e2+ 66 ♔f8 =; admittedly, there was not very much chance of catching such a great master of pawn endings as Grigoriev in a trap like this, but even so, we can see the value for Black of having saved time and energy on the previous move) 62 b6 (62 f5!? d2 63 f6 d1♕ 64 f7 also requires accurate handling by Black) 62...♔xb6 63 f5 d2 64 f6 d1♕ 65 f7. Now some knowledge of the theory of this ending is needed to win. This is achieved as follows: 65...♕e2+ 66 ♔d7 (66 ♔f8 ♕g4!, etc.) 66...♕f3 67 ♔e7 ♕e4+ 68 ♔d7 ♕f5+ 69 ♔e7 ♕e5+ 70 ♔f8 ♕h8+! 71 ♔e7 ♕g7 72 ♔e8 ♔c7!, etc.

57...a4!

The only way. 57...c4? is bad due to 58 bxc4 a4 59 ♔d6! a3 60 c5+, drawing.

58 bxa4 c4 59 f4 d3 60 cxd3 cxd3 61 f5

With his king on e6 instead of e7 (see the note to White's 57th move), White does not even have the aforementioned chance to muddy the waters. After 61 a5+ ♔xb5 62 a6 ♔xa6 63 f5 d2 64 f6 d1♕ 65 f7 Black has 65...♕d8.

61...d2 62 f6 d1♕ 63 f7 ♕d8 64 ♔f5 ♕d6 0-1

So, we can say that we have replaced Kotov's first two points with our own formulation. Or,

more accurately, that his points frequently do not work very satisfactorily, and in many cases not at all, since they omit too many important issues. But two more points remain in Kotov's list. What is the situation as regards them?

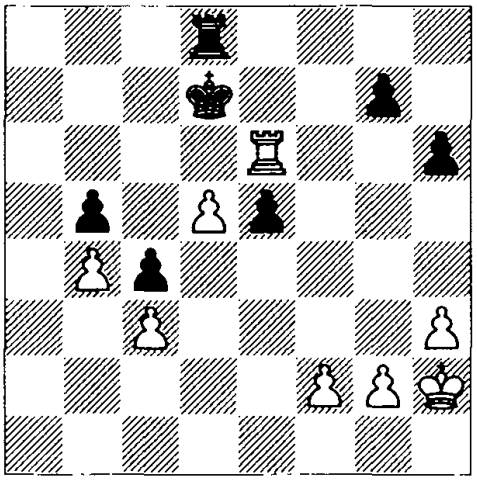
As far as point 4 is concerned, in respect of how many times one should analyse each candidate move, we shall return to this later. As for point 3, which says that the various lines can be thought of as a tree of variations, what exactly is the significance of this? Does it mean that when calculating, the player should picture the variations as a tree, or that he should come to the board armed with a piece of paper, on which to draw his picture? And if so, what is he supposed to do with this picture afterwards? No, of course, this is of no relevance to the task of calculating variations at the board. We can simply forget about the third point altogether, since it is entirely superfluous.

Unclear and Complex Situations

We shall therefore continue along our own path, where the time has come to take the next step. This concerns the following. In many complicated positions, when strategically things are not entirely clear, it is often very difficult to determine a single clear direction or dominant logic to the game. Then there is often a choice of different plans, and consequently, of candidate moves. This may all sound somewhat confusing, but the next example should clarify things.

At first glance, this position only appears to be complicated in the sense of the number of candidate moves for White, whereas strategically, the essence of the position appears clear: White has an extra pawn and should win another without undue difficulty, and in several different ways. The question is which of these ways is the best, and the answer should come from calculating the various candidate moves. But in fact, this is not the only view of this position. The truth is that there are two factors to be taken into account:

1) If the white rook leaves the rank, the black king can advance, and with his rook able



W

Geller – Smyslov
Interzonal, Palma de Mallorca 1970

in any case to penetrate the white position, Black's pieces would suddenly achieve a substantial measure of coordination.

2) By contrast, no such coordination is visible amongst the white pieces. His rook operates in the rear of the enemy position, while the king sits on h2.

I have written a good deal about the importance of coordination in my book *How to Play Dynamic Chess* (Gambit, 2004) and I would direct you to this book if you wish to find out more about this subject. So as not to deflect attention by jumping from one point to another, let us immediately follow the method of home analysis outlined earlier, and analyse the consequences of the various candidate moves which fit with the direction of play outlined above.

a) 46 ♖xe5 ♖a8 47 ♔g3 ♔d6 48 ♖e3 ♖a2!. Here Black has serious counterplay, quite possibly sufficient to save the game.

b) 46 ♖g6 ♖a8 47 ♖xg7+ ♔d6 48 ♖g6+ ♔xd5 49 ♖xh6 ♖a3 50 ♖b6 ♖xc3 51 ♖xb5+ ♔d4 52 h4 ♖b3 53 h5 c3 54 h6 c2 55 ♖c5 (55 h7? loses to 55...c1♕ 56 h8♕ ♕f4+) 55...♖c3 56 ♖xc3 ♔xc3 57 h7 c1♕ 58 h8♕ ♕f4+ 59 ♔h3 ♕f5+ 60 ♔g3 ♕f4+ and a draw by repetition. Both of these variations were pointed out by Geller himself.

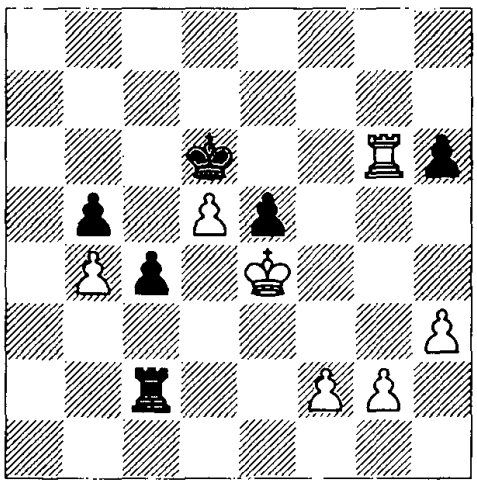
c) Furthermore, after 46 ♖b6 ♖a8 47 ♖xb5 ♖a3 48 ♖c5 ♖xc3 49 ♖c6 ♖b3 50 ♖xc4 ♔d6 51 ♖c6+ ♔xd5 52 ♖g6 ♖xb4 53 ♖xg7 h5 54 ♖g5

h4 White's advantage is only minimal and a draw is the most likely outcome.

It is easy to see that in all of these examples, Black was saved by the active coordination of his forces. This factor was noted by us earlier, when we tried to predict the likely course of the play. But what other possible logic is there to this position? Evidently, the following: if our problems in the approach come from our opponent's piece coordination, and our lack of it, then logic suggests that we look for a way to achieve such coordination ourselves, while denying it to the opponent. Geller began to look in this direction and this was the result:

46 ♔g3! ♖a8 47 ♔f3 ♖a3 48 ♔e4 ♖xc3 49 ♖g6 ♖c2 50 ♖xg7+ ♔d6 51 ♖g6+ *(D)*

B



This is the difference. Now the coordination of White's forces has prevented the black king and rook from working together. This position, which has arisen by force, must be judged to be winning for White, even though he still has to solve a few technical difficulties. Geller copes with this task excellently and in very instructive fashion.

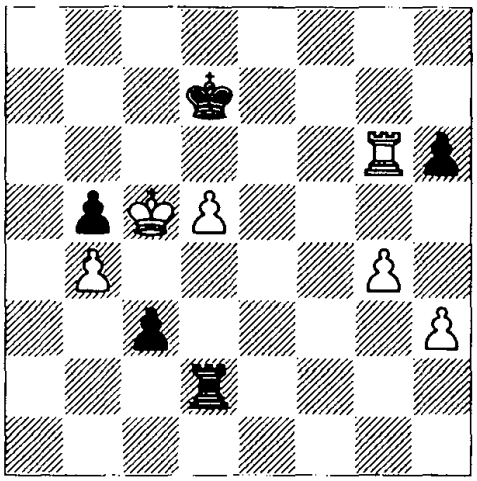
51...♔d7 52 ♖g7+ ♔d6 53 ♖g6+ ♔d7 54 ♔xe5 ♖e2+ 55 ♔d4 ♖xf2 56 ♖g7+ ♔d6 57 ♖g6+ ♔d7 58 g4! ♖d2+ 59 ♔e5 ♖e2+

In the case of 59...c3 60 ♖d6+! events develop much as in the game.

60 ♔d4 ♖d2+ 61 ♔c5 c3 *(D)*

White has achieved everything he was striving for, completely disrupting his opponent's forces and maximizing the coordination of his own. His only remaining task is to neutralize

W



the enemy passed pawn. This is achieved by the following standard, but nonetheless effective manoeuvre.

62 ♖d6+!

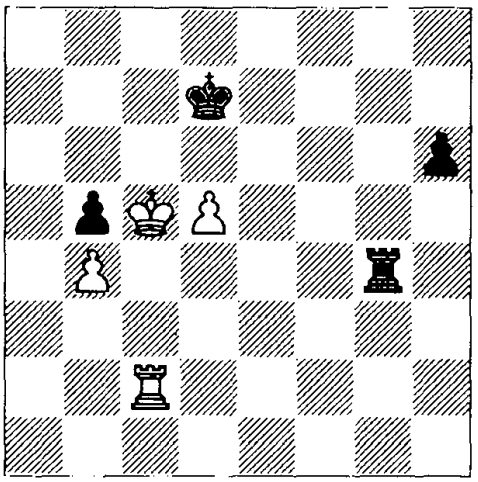
Now any retreat worsens the position of the black king.

62...♔e7 63 ♖e6+ ♔d7 64 ♖e3! c2 65 ♖c3 ♖h2 66 h4!

The last difficult decision in the game. Now the rest is simple.

66...♖xh4 67 ♖xc2 ♖xg4 *(D)*

W



The result is material equality, but Black's position is hopeless. The deciding factor is the difference in coordination and activity of the two sides' forces. This is absolutely typical of Geller's accurate and powerful manner of putting his plans into operation.

68 ♖h2!

Tying down Black's rook.

68...♖g6 69 ♔xb5 ♔d6 70 ♖h5 ♔c7

There is also no salvation in the variations 70...♖g5 71 ♖xh6+ ♔xd5 72 ♔b6 and 70...♖f6 71 ♔b6 ♖g6 72 b5.

71 ♔c5 ♖f6 72 ♖h1 ♔b7 73 b5 ♖g6 74 ♖h5 ♔c7 75 ♖f5 ♖g1 76 b6+ ♔b7 77 ♖f7+ ♔b8 78 d6 ♖c1+ 79 ♔d5 1-0

White's king reaches the f8-square and his pawn queens.

Now we can be so bold as to take one further step forward, and suggest that just as the assessment of a position and the conclusions drawn from it influence the choice of variations to be calculated, so the calculation itself in turn influences the assessment of the position. There are many positions where it is impossible to reach a *correct* judgement solely on the basis of outward appearances. This is because such positions depend on the combined effect of too many different factors and details, be they great or small. Identifying and correctly appraising all of these is possible only after detailed calculation of variations, often very complicated and diverse ones. This gives rise to the question: how should we proceed with the calculation of variations when the correct approach to the position is not clear to us? The answer is as follows: even in situations where the two sides' forces are in open collision, the direction in which one's calculations should be pointed is usually relatively clear. The consequences of the calculation itself may be unclear, but uncovering the truth there is precisely what we are striving to do.

We could talk about this subject for a long time, but it will be much clearer if we proceed to a concrete example.

Polugaevsky – Nezhmetdinov

Russian Federation Ch, Sochi 1958

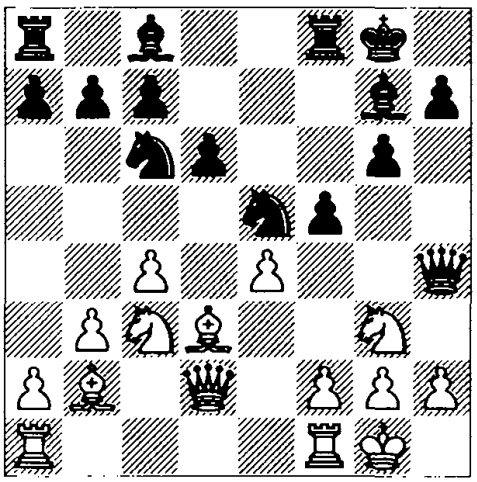
When this game was played, Lev Polugaevsky was still a little-known, young (aged 24) master, while Rashid Nezhmetdinov, now half-forgotten, was then at the height of his fame as a brilliant tactician and great master of attack. This game has been annotated in many places, including by Nezhmetdinov himself, and many years later by Mark Dvoretsky. These commentaries will both be used here.

1 d4 ♘f6 2 c4 d6 3 ♘c3 e5 4 e4 exd4 5 ♕xd4 ♘c6 6 ♕d2 g6 7 b3 ♗g7 8 ♗b2 0-0 9 ♗d3 ♘g4 10 ♘ge2!?

Even in those days, it was already well-known that after 10 ♘f3 ♘ge5 11 ♗e2 ♘xf3+ 12 ♗xf3 ♘d4 13 ♗d1 f5 Black develops a dangerous initiative. Polugaevsky's plan is an attempt to strengthen the variation.

10...♕h4 11 ♘g3 ♘ge5 12 0-0 f5 *(D)*

W



13 f3

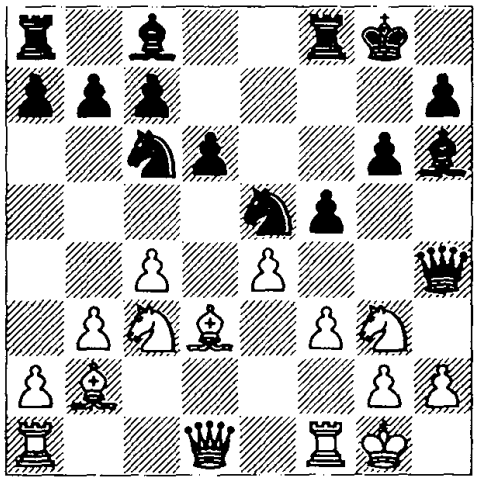
After this move, the game becomes extremely complicated. It seems to me that it is impossible to evaluate these complications, and with them the correctness of Polugaevsky's whole plan, without a detailed analysis of the position. The alternative was 13 exf5 gxf5 14 ♘ge2 (bad is 14 ♘d5? f4 15 ♘xc7 ♖b8 16 ♘e4 f3 17 ♕g5 fxg2 –+). The position reached after the further moves 14...f4 15 f3 ♘xd3 16 ♕xd3 is rather easier to assess, and should be considered roughly equal. However, the opinions of our two co-pilots in this discussion are as follows: "13 f3!! The beginning of a deep plan of defence." (Nezhmetdinov). "Opening the g-file after 13 exf5 gxf5 would play into Black's hands" (Dvoretsky).

13...♗h6 14 ♕d1 *(D)*

14...f4

Another important moment. Here Nezhmetdinov missed the chance to obtain the advantage by following the most natural path: first get the bishop out of the way by 14...♗e3+! 15 ♔h1 and only now 15...f4; then after 16 ♘ge2 g5 17 ♘d5 g4 18 g3 (bad is 18 ♘xe3 g3 –+; or

B



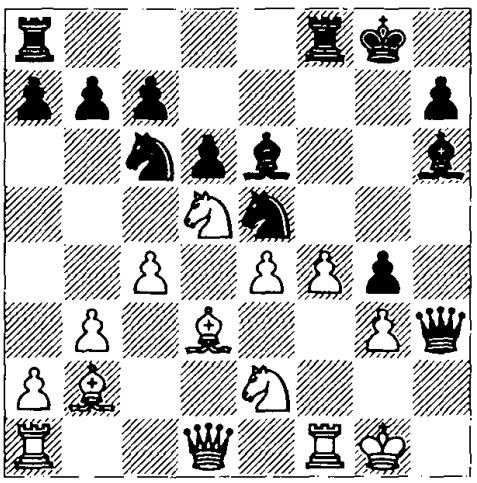
18 fxg4 ♘xg4 19 h3 f3 –+) 18...fxg3 19 ♘xg3 ♗d4!? 20 ♗xd4 ♘xd4 Black has a lasting advantage. If these variations are correct, and I see no reason to distrust them, then one must regard White's previous move as a mistake and prefer 13 exf5. I would emphasize again that it is unrealistic to try to judge such a complicated position on the basis of outward appearances, without calculating variations. As for Black's 14th move, we shall investigate this further as the game progresses, but even here, one can say that it looks somewhat illogical – Black first moves the King's Indian bishop off its normal diagonal, and then closes its new line with his own pawn.

15 ♘ge2 g5 16 ♘d5 g4!?

Black develops the initiative energetically.

17 g3 fxg3 18 hxg3 ♕h3 19 f4 ♗e6! *(D)*

W



The tension mounts. In such situations, the value of every single move is great.

20 ♗c2

This is considered the decisive mistake by both Nezhmetdinov and Dvoretsky. Both base their opinion on the results of their concrete analysis. But we too must form our own opinion on this critical moment in the game. To begin with, we can note a few obvious points. 20 fxe5? is bad for White in view of 20...♗xd5 21 ♗c1 ♘xe5!. The same is true of 20 ♘xc7 ♖xf4! 21 gxf4 (21 ♘xe6? loses immediately to 21...♖xf1+ 22 ♕xf1 ♗e3+, and neither does 21 ♘xf4 ♕xg3+ 22 ♔h1 ♗xf4 23 ♖xf4 ♕xf4 24 ♘xe6 ♕h6+ 25 ♔g2 ♕h3+ 26 ♔g1 ♘xd3 27 ♕d2 ♕g3+ save White) 21...g3 22 ♘xg3 ♕xg3+ 23 ♔h1 ♕h4+! 24 ♔g1 ♗h3 25 ♕e2 ♖f8! 26 ♖f2 ♖xf4 27 ♖xf4 ♗xf4 and Black wins easily.

Nezhmetdinov suggested as strongest 20 ♗b1, after which Dvoretsky (many years later!) pointed out the convincing refutation 20...♗xd5! 21 cxd5 ♖xf4! 22 gxf4 g3 23 ♘xg3 ♕xg3+ 24 ♔h1 ♕h3+ 25 ♔g1 ♔h8! winning.

It was then Dvoretsky's turn to suggest something for White, which was 20 ♗c1!?. Nezhmetdinov himself had considered this move, and gave as the refutation 20...♘d4 (!! Nezhmetdinov). However, further checking reveals that after 21 ♘xd4 ♕xg3+ 22 ♔h1 ♕h3+ 23 ♔g1 g3 24 ♕e2 ♗xd5 25 exd5! ♘xd3 (25...♗g7 26 ♗f5!) 26 ♕e6+ ♕xe6 27 ♘xe6 ♖f5 28 ♖f3 White has a small advantage. It seems that a more convincing continuation is 20...♗xd5! and after 21 fxe5 (on 21 cxd5, 21...♘d4! 22 ♘xd4 ♕xg3+ 23 ♔h1 ♘xd3 wins, as also does 21 exd5 ♘f3+ 22 ♔f2 ♕h2+ 23 ♔e3 ♖ae8+) there follows 21...♘xe5 22 ♗xh6 ♘f3+ 23 ♔f2 ♕h2+.

From the foregoing we can draw the conclusion that either White's position is already bad, or his 20th move is perfectly OK, and he lost because of some later error. Let us look at what happened.

20...♖f7

The attentive reader will no doubt be wondering why, if 20...♗xd5 is so strong with the bishop on b1 instead of c2, it does not work here also. Certainly, it looks good at first sight. White has to take with the queen: 21 ♕xd5+ (after 21 cxd5 ♖xf4! White loses in similar

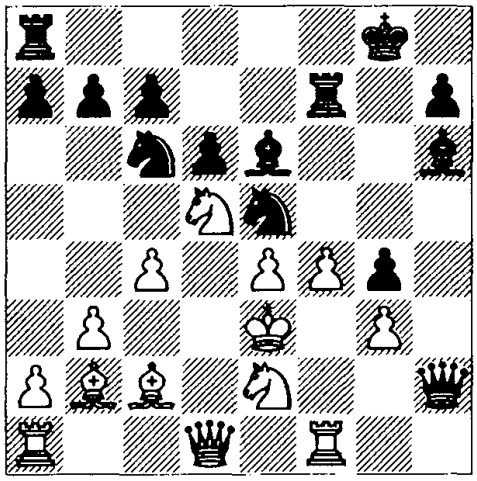
fashion to the line given after 20 ♗b1) 21...♖f7 but now he is able to continue to balance on the precipice by means of 22 ♕e6! ♔f8 23 ♖f2! ♖e8 24 ♕xf7+ (only move) 24...♘xf7 25 ♖h2 ♗xf4 26 ♖xh3 ♗e3+ 27 ♔h2 gxh3 28 ♖f1, retaining real chances of saving the game. But with the bishop on b1 instead of c2, Black can recapture at move 24 with the king, instead of the knight, whereupon he wins! These are the kind of secrets which can be uncovered in home analysis, although even with virtually unlimited time, it is often difficult to find the truth.

21 ♔f2!

The storm clouds are gathering over the white king's position, and he decides to take to his heels!

21...♕h2+ 22 ♔e3 *(D)*

B



22...♗xd5!

The exclamation marks which are showered on Black's subsequent moves should be given to this exchange, because it is this which starts the winning operation, and also because after this move, there is no way back.

23 cxd5

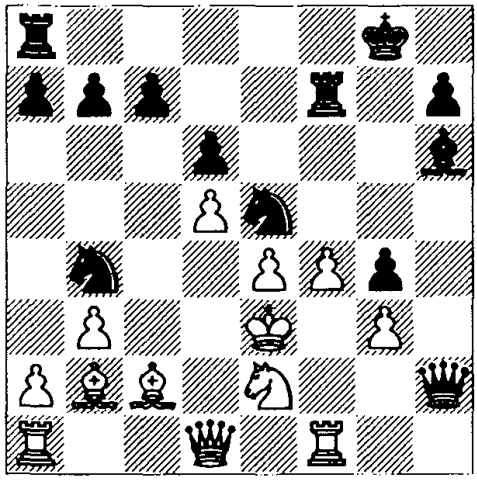
The best move. White loses after 23 exd5? ♖e8 while following 23 ♕xd5 ♘b4 24 ♕d1 (preserving the d2-square for the king if need be; 24 ♕d2? loses to 24...♗xf4+! 25 gxf4 ♕h3+ 26 ♔f2 g3+ 27 ♔e1 g2) 24...♖e8 Black has significant pressure.

23...♘b4 *(D)*

24 ♖h1

Both of our featured annotators passed by this moment as if it goes without saying, but

W



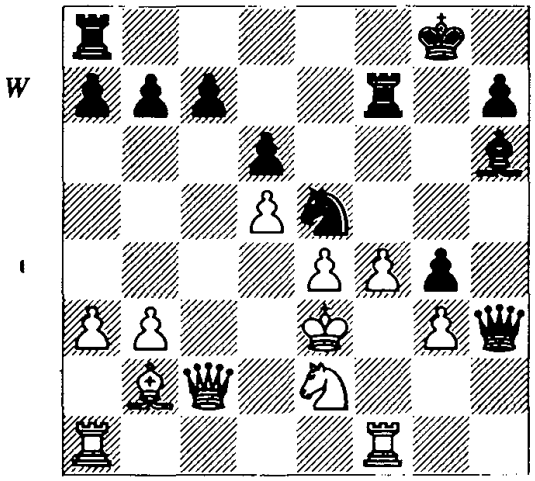
one is reminded of the old rule, formulated most clearly and in his own blunt way, by Korchnoi: "All obvious moves look dubious in analysis after the game". This rule suggests that we should not be in too much of a hurry to accept the move played, but should look for other ideas for the losing side. In particular, let us look at the position in detail, something which one should do every once in a while, even in extremely sharp and complicated positions. Such a survey of the position allows the player temporarily to shake off the fever of hard calculation, and it sometimes results in his seeing new, interesting and often unexpected ideas in the position. Thus, looking as it were from the side, we soon find 24 a3!?, with the following variations:

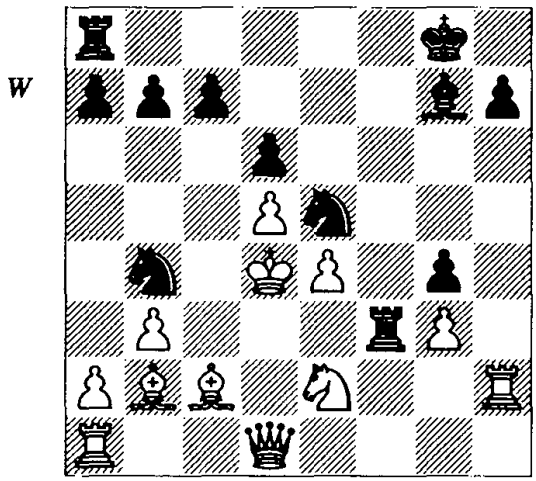
a) 24...♕h3?! and now White has two ways to obtain the advantage:

a1) 25 axb4 ♗xf4+ 26 ♘xf4! (now Black won't gain time with ...♕f3+; after 26 ♖xf4? ♖xf4 27 ♕h1 {27 ♘xf4 ♕xg3+ 28 ♔e2 ♕f3+ 29 ♔e1 ♕g3+ 30 ♔d2 ♕xf4+ favours Black} 27...♖f3+ 28 ♔d2 ♖f2 Black is certainly not worse) 26...♖xf4 (26...♕xg3+ 27 ♔d2!?) 27 ♖xf4 ♕xg3+ 28 ♔e2 ♕xf4 is somewhat better for White.

a2) White can also play 25 ♔d2!? with the follow-up 25...♘f3+ 26 ♔c1 ♘xc2 27 ♔xc2 ♕g2 28 ♖h1 ♗g7 29 ♗xg7 ♔xg7 30 ♕f1 ♘d4+ 31 ♔d3 ♕xf1 32 ♖axf1 ♘xb3 33 ♖h4 and this ending turns out to be advantageous for White.

b) But Black has another option, namely 24...♘xc2+ 25 ♕xc2 ♕h3 *(D)*, and here:





b1) 26 ♗xe5?! dxe5 27 ♖h1 and then:

b11) 27...exf4+?! 28 ♔d3 ♕g2 29 ♖xh6 f3 30 ♘f4 ♕xg3 31 ♘h5 ♕e5 32 ♕c3 ♕xc3+ 33 ♔xc3 f2 34 ♖f1! ♖f3+ 35 ♔d4 ♖af8 36 ♖e6! is good for White.

b12) 27...♗xf4+ 28 ♔d3 ♕g2 29 gxf4 ♕f3+ 30 ♔c4 c6 31 fxe5 b5+! 32 ♔c5 ♕e3+ 33 ♘d4 cxd5 with a likely draw.

b13) 27...♖xf4! (Nunn) 28 ♔d3 ♖f3+ 29 ♔c4 ♕g2 30 ♖xh6 ♖e3 might give Black some advantage.

b2) 26 ♔d2! ♘f3+ (26...♕g2 27 ♖ad1 ±) 27 ♔d3 ♕g2 28 ♖h1 ♗g7 (28...♖e8 29 ♖xh6 ♖xe4 30 ♕d1! ♖fe7 31 ♖e6) 29 ♗xg7 ♔xg7 30 ♔c3 ±.

Incidentally, with the king on e3, 24 ♗b1!? is also interesting.

So it turns out that White's 24th move was the decisive mistake. In view of the fact that the alternative examined above leads to at least an acceptable game for White, it follows firstly that the criticism of White's 20th move is unfounded, and secondly, that Black's decision at move 14 was mistaken, and lost the chance to obtain the advantage by force. In addition, at move 20 he could have forced a favourable ending. It is also clear that in such a complicated position as that which arose in this game, one cannot reach an accurate judgement without detailed calculation of variations and relying solely on general positional considerations.

24...♖xf4!

Black has no choice, so this brilliant move receives only one exclamation mark.

25 ♖xh2 ♖f3++ 26 ♔d4 ♗g7! *(D)*

As a result of a tense struggle and an effective combinative breakthrough, we have reached a remarkable position. White has an extra queen for just one pawn, but is in a desperately bad way. The analysis of such a position involves a lot of variations, but all the same, it is not so difficult, because *the direction of the analysis is obvious*. At this stage, I do not have any significant disagreements with the other annotators, nor with the conclusion at which we have all arrived – White's position is indefensible.

27 a4

The point of this move is explained by the variation 27 ♘f4 b5! 28 ♕xf3 (only move) 28...♘xf3++ 29 ♔e3 ♗xb2 30 ♖ah1 ♗d4+ 31 ♔e2 ♘xh2 32 ♖xh2 ♘xc2 33 ♔d3 ♘e1+ 34 ♔xd4 ♘f3+.

27 ♘g1 is more complicated. Then it turns out that the immediate 27...♘ed3+? works after 28 ♔c4? ♘xb2+ 29 ♔xb4 ♗c3+ 30 ♔a3 b5 31 ♕d4 (only move) 31...♗xd4 32 ♘xf3 ♗c3! 33 b4 a5 34 ♔b3 axb4 35 a3 ♘c4 ∓, but fails to 28 e5! ♗xe5+ 29 ♔c4 ♘xb2+ 30 ♔xb4 a5+ 31 ♔b5 ♘xd1 32 ♖xd1, when it is White who has the advantage. Therefore, Black should instead prefer 27...♖xg3! and after 28 ♘e2 ♖f3 29 ♘g1 ♘ed3+ 30 ♔c4 (now nothing comes of 30 e5 ♗xe5+ 31 ♔c4 ♘xb2+ 32 ♔xb4 ♘xd1 —+) 30...♘xb2+ 31 ♔xb4 ♗c3+! 32 ♔a3 b5 33 b4 a5 Black wins.

27 ♘c3!? is a more resilient defence but even then Black can achieve a decisive advantage, and even has a choice of ways: 27...♘ed3+!? 28 e5! ♗xe5+ 29 ♔c4 ♘xb2+ 30 ♔xb4 ♗xc3+ 31 ♔a3 ♘xd1 32 ♖xd1 ♖xg3 33 ♖f1!? a5!?

(even stronger than 33...♖h3 34 ♖xh3 gxh3 35 ♖h1 ∓) 34 ♗xh7+ ♔g7 35 ♗f5 a4 and Black wins; or 27...a5!? 28 ♕xf3 (28 ♖b1 also loses: 28...♘d7+! 29 e5 ♗xe5+ 30 ♔c4 c6! 31 ♗xh7+ ♔g7 32 dxc6 ♘b6+ 33 ♔b5 bxc6+ 34 ♔xb6 ♖a6+ 35 ♔b7 ♖f7+ 36 ♔b8 d5+ 37 ♔c8 ♖a8#) 28...♘xf3++ 29 ♔c4 ♘xh2, winning.

In the game, everything ended by force:

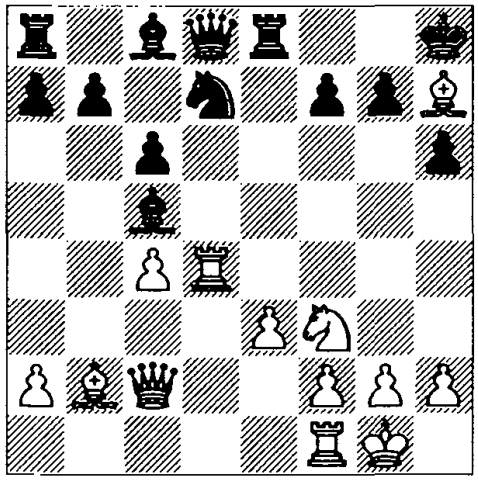
27...c5+ 28 dxc6 bxc6 29 ♗d3 ♘exd3+ 30 ♔c4 d5+ 31 exd5 cxd5+ 32 ♔b5 ♖b8+ 33 ♔a5 ♘c6+ 0-1

The Role of Judgement

After all that we have seen in the last few examples, we can say with confidence that the calculation of variations and the assessment of the position are inextricably linked, so much so that it is often impossible to say which comes first. But now we should go further along this road, and think about the fact that the calculation of variations only occasionally leads to a situation in which it is easy to assess the position. Further, we can say that calculation is the most important and *multifunctional* thing in chess. We are already acquainted with the functions of calculation, but now is the time to mention one of the most important: calculation of variations *aims to clarify the position*; in other words, by calculating variations, *the player hopes in the end to arrive at a sufficiently understandable (and, if possible, favourable or at the very least, satisfactory) situation*. Needless to say, all of these formulations include an element of the judgement function. And therefore we now consider the issue of the assessment of the position *at the end* of our calculation. This seemingly straightforward subject has a number of aspects, which we must examine in turn.

To begin with, we shall look at two magnificent examples from the games of Tigran Petrosian.

In the following diagram, White has an indisputable advantage in development and activity. It is also clear that his activity is directed at the centre and kingside. For the time being, Black is defending everything, and a direct attack on the main vulnerable point at g7, by 17



W

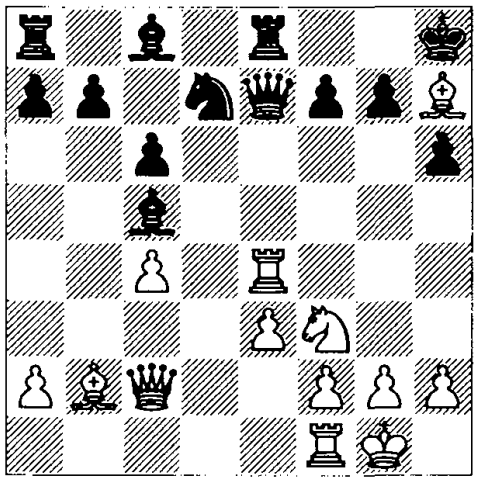
Petrosian – Taimanov
USSR Ch, Moscow 1955

♖g4, is met by 17...♘f6 (as indeed is the alternative 17 ♖h4). Petrosian found a manoeuvre which was directed against this valuable defensive resource:

17 ♖f4! ♕e7

If 17...♖f8 then 18 ♖d1! ♕c7 (18...♕e7? 19 ♖e4 ♕d8 20 ♖g4 +–) 19 ♖h4 f6 20 ♖h5! +–.

18 ♖e4! *(D)*



B

18...♕f8?

Black fails to show the necessary tenacity in defence. He had to keep an eye on the key f6-square by 18...♕d8!. Then it would still not be at all easy for White to overrun his opponent's fortifications. White can try such variations as 19 ♗f5!? ♘f8! (19...♘f6? is bad due to 20 ♗xf6 gxf6 21 ♖d1; Black also has trouble after 19...♘b6?! 20 ♘e5! ♖e7 21 ♖g4!) 20 ♖g4 f6,

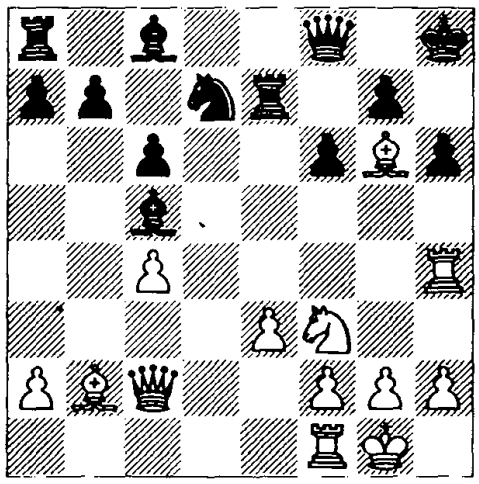
when he has forced a weakening, but compared with the game continuation, his pieces are placed less favourably and Black's more favourably. Now, however, the game takes on a forcing character and White plays very convincingly.

19 ♖h4! f6

Not 19...♘f6 20 ♖xh6!.

20 ♗g6 ♖e7 *(D)*

W

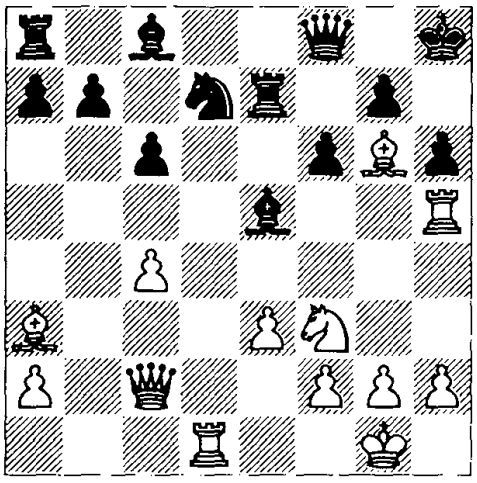


21 ♖h5! ♗d6

Trying to continue development does not help: 21...b6 22 ♖d1!? ♗b7 23 ♘h4 ♘e5 24 ♗xe5 ♖xe5 25 ♗f5! ♕e8 26 ♘g6+ ♔g8 27 ♘xe5 +–.

22 ♖d1! ♗e5 23 ♗a3! *(D)*

B



Excellent! White forces further weaknesses and wins a vital tempo, because Black needs the e5-square for his knight.

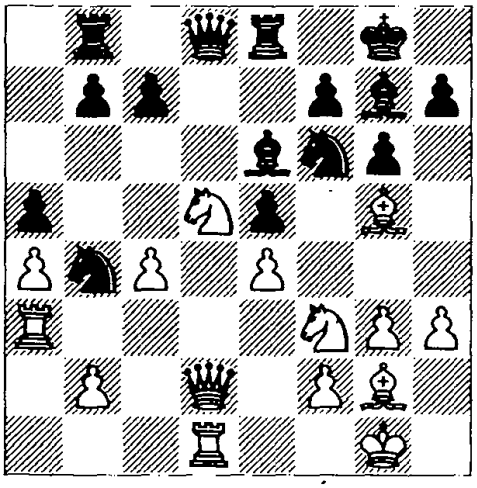
23...c5 24 ♘h4!

The position is now completely clear. Black cannot avoid serious material losses: 24...♕d8 25 ♗e4 ♔g8 26 ♗d5+; 24...♕g8 25 ♗h7! ♕xh7 26 ♘g6+. Therefore...

1-0

In the next example, there is no manoeuvring stage:

B



Polugaevsky – Petrosian
Tbilisi 1956

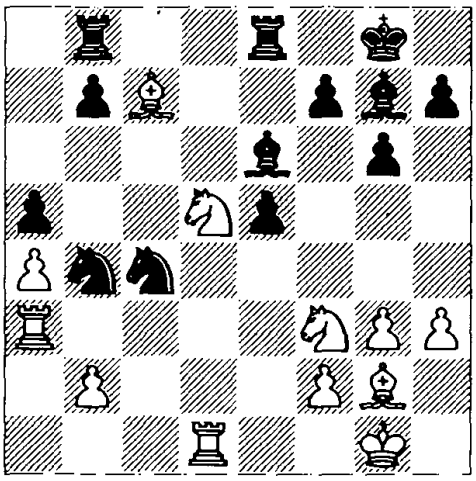
Black lands an obvious and very typical tactical blow. The question is what result it leads to in this particular position. In other words, Black needs to calculate deeply and assess the results.

17...♘xe4! 18 ♗xd8 ♘xd2 19 ♗xc7

White has nothing better. He has a hopeless position after 19 ♖xd2 ♖exd8 20 ♘xc7 ♗xc4 or 19 ♘xd2 ♖exd8 20 ♘xc7 ♗xc4.

19...♘xc4! *(D)*

W

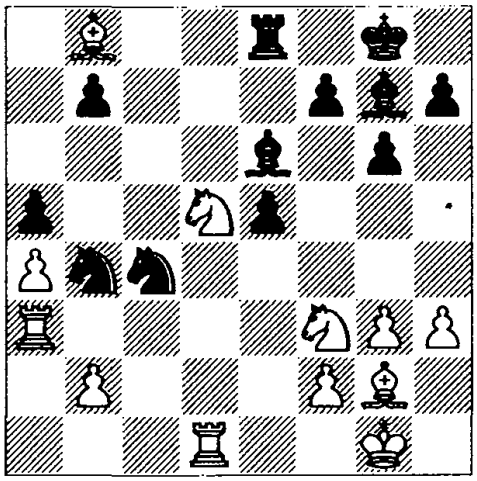


The only move – anything else leads to an advantage for White. Of course, Black had to see this when he started the tactical operation.

20 ♗xb8 *(D)*

Also forced. He loses quickly after 20 ♘xb4 axb4 21 ♖b3 ♖bc8.

B



But here it is more difficult to decide how to continue. Thus, Black only ends up with an insignificant advantage after 20...♘xa3?! 21 bxa3 ♘xd5 22 ♗xe5. He also has nothing real at the end of the variation 20...♘xd5?! 21 ♗xe5! f6 22 ♖ad3! fxe5 23 ♖xd5 ♗xd5 24 ♖xd5 e4 25 ♘d2. And in the event of 20...♖xb8?! 21 ♘xb4 ♘xa3 22 bxa3 axb4 23 axb4 Black does not have very much either.

20...♗xd5!

Therefore this is the only move which allows him to fight for an advantage.

21 ♗a7

White has a lost position after 21 ♗c7 e4 22 ♘d2 ♘xb2 23 ♖c1 ♗h6!.

21...e4!

Once again, from the various choices, Petrosian picks the one which leads to the clearest and most favourable consequences.

22 ♘g5

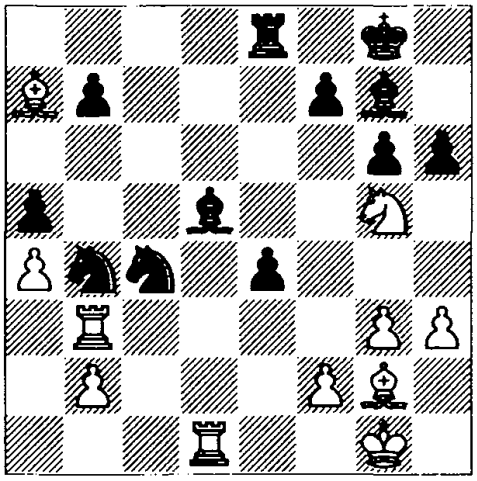
White tries to confuse the issue. The outcome of 22 ♘d2 ♘xb2!? 23 ♖c1 ♘2d3 24 ♖b1 ♗b2 25 ♖b3 ♗xb3 26 ♘xb3 f5 or 22 ♘d4 ♘xa3 23 bxa3 ♘c6 24 ♘b5 ♗b3 is too unpleasant.

22...h6 23 ♖b3 *(D)*

23...♗c6!

Petrosian plays faultlessly. In the event of 23...hxg5 24 ♖xb4 axb4 25 ♖xd5 ♘xb2 26 a5!

B



a position is reached, the consequences of which are much less clear than in the game.

24 ♘xe4

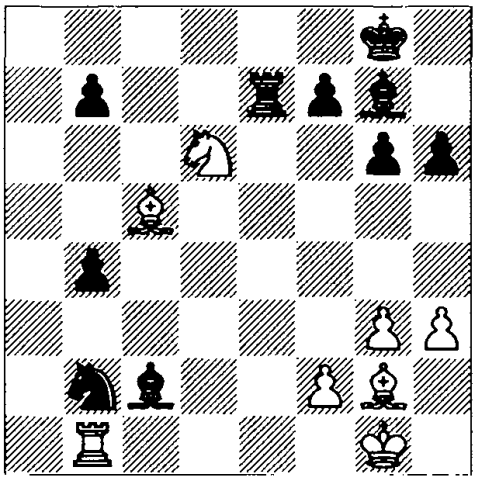
After 24 ♖c1 ♘d2 25 ♖xb4 axb4 26 ♗e3 ♘b3 Black is winning.

24...♗xa4!

Again the best decision! If 24...♗xe4 25 ♗xe4 ♖xe4 26 ♖d8+ ♔h7 27 ♖d7 White has counterplay. Now all his hopes are quashed and the rest of the game is just an elementary technical task for Black.

25 ♖xb4 axb4 26 b3 ♗xb3 27 ♖b1 ♘b2 28 ♘d6 ♖e7 29 ♗c5 ♗c2 *(D)*

W



The position is completely clear. The b-pawn decides the game.

30 ♖a1

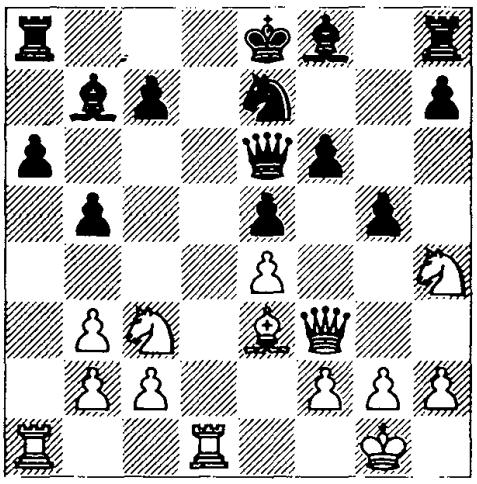
30 ♖c1 b3 31 ♘xb7 ♖d7 is also hopeless for White.

30...♘a4 31 ♖xa4 ♗xa4 32 ♗xb4 ♗c6 33 ♗f1 ♖d7 34 ♘c4 ♗b5 35 ♘b6 ♖d1 0-1

In this example, we saw irreproachable calculation by Black. There is one more peculiarity of this ending which should be noted. Black did not have to calculate long forcing variations. Almost all of his decisions were based on comparison of the assessments of the positions arising from fairly short and simple variations after each candidate move.

However, calculation does not always lead to a clear position. Quite often it is easier to calculate the variations (often forced ones) than to assess the resulting positions, and the latter is therefore often the most important thing in many games. This is the case in the following example.

W



Spassky – Taimanov
USSR Ch, Moscow 1955

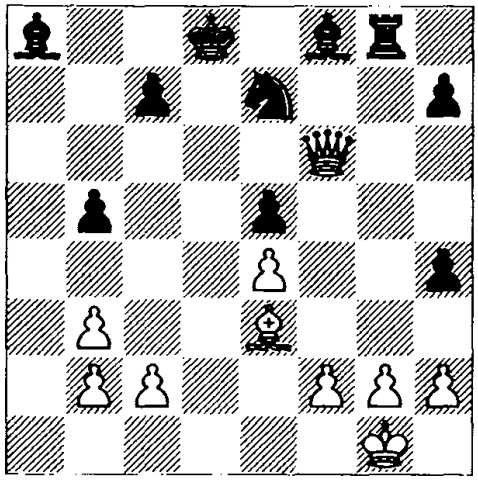
Black has played the opening stage of the game in aggressive fashion, especially his last move, 14...g7-g5 – a pawn-thrust on the flank when his development is seriously lagging. This leads to a marked sharpening of the game, since the variations 15 ♘d5?! ♘xd5 16 exd5 gxh4! 17 dxe6 ♗xf3 18 gxf3 ♔e7! and 15 ♘f5?! ♕xf5! 16 ♕xf5 ♘xf5 17 exf5 ♖d8! are in Black's favour. White is therefore almost obliged to go down the following forcing variation.

15 ♘xb5! axb5 16 ♕h5+ ♕f7

16...♘g6 17 ♖xa8+ ♗xa8 18 ♘xg6 ♕f7 19 ♕h3 is very bad for Black.

17 ♖xa8+ ♗xa8 18 ♖d8+ ♔xd8 19 ♕xf7 gxh4 20 ♕xf6 ♖g8 *(D)*

W

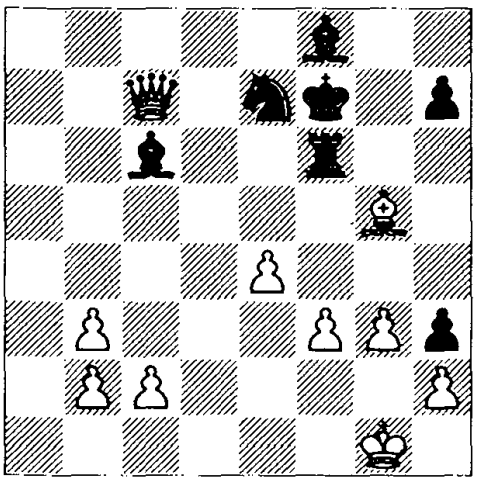


So, the forcing stage is over; what is the outcome? White has queen and two pawns against his opponent's rook, knight and bishop. Materially, this is approximately equal, but the weaknesses in Black's position are unarguable: his pawn-structure consists of various scattered islands, his pieces are uncoordinated, and his king exposed, which allows White to gain vital tempi with his queen. White, meanwhile, has a solid structure and well-posted pieces. The conclusion is that White's position is winning.

His next move is obvious. There is no sense in gifting Black the e4-pawn, especially as this pawn locks his bishop out of the game for a long time. In addition, White does not wish to exchange off his opponent's pawns; he wants to win them!

21 f3! h3 22 g3 ♔e8 23 ♕xe5 ♖g6 24 ♕xb5+ ♗c6 25 ♕b8+ ♔f7 26 ♕xc7 ♖f6 27 ♗g5! *(D)*

B

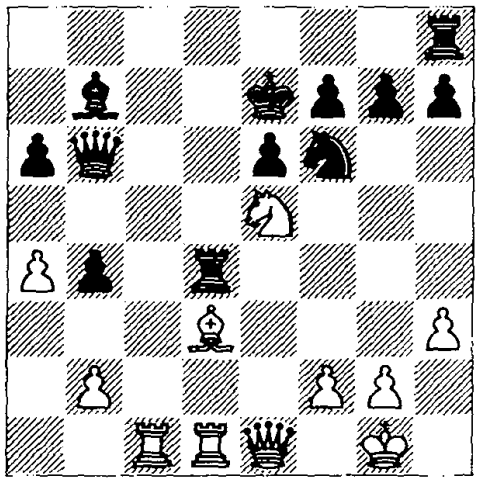


It is all over. White has a decisive advantage, and it is surprising that Black does not bow to the inevitable rather sooner.

27...♖e6 28 b4 ♔g8 29 ♕b8 ♘g6 30 ♔f2 ♘e5 31 b5 ♗e8 32 ♗e3 ♗d6 33 ♕c8 ♔f7 34 b6 ♖f6 35 ♗f4 ♗d7 36 b7 ♗e6 37 ♗xe5 ♗xe5 38 b8♕ ♗xc8 39 ♕xe5 1-0

It should say right out that although the position here was not of a standard type, its assessment was not so difficult, even though it was instructive.

The following game is even more interesting and original.



Kramnik – Kasparov
Korchnoi rapidplay, Zurich 2001

It is not easy at first to judge this position. As well as an extra pawn, Black has a small space advantage and controls most of the central squares, but these factors may be negated by his lack of development. But how can White exploit this factor? The usual approach is to harass the opponent constantly, not allowing him to catch up in development, and trying to exploit White's extra active forces. If one applies this principle here, 24 ♘c4 immediately comes to mind. It forces Black to sacrifice the exchange by 24...♖xc4 (he loses after 24...♕c5? 25 ♘e3 ♕g5 26 ♖c7+ ♖d7 27 ♕xb4+). Then after 25 ♖xc4 a5 White certainly has the advantage and every chance of winning. Kramnik, however, chose a different and completely unexpected path. Instead of the safe and risk-free technical approach, he chose a line that is highly effective but at first sight hard to understand, involving not the winning of material, but a sacrifice, and one without forced consequences:

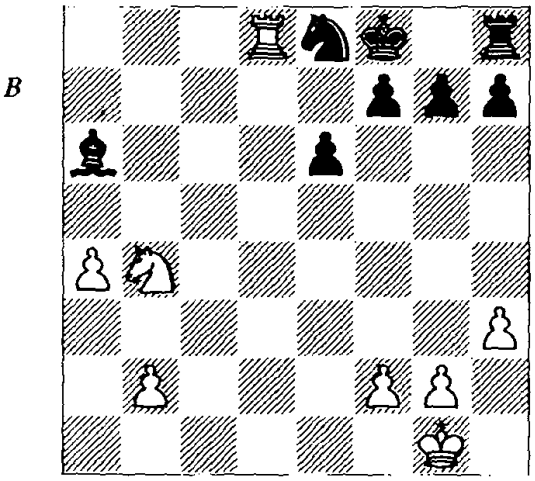
24 ♗xa6! ♖xd1

He loses immediately after 24...♗xa6 25 ♖xd4 ♕xd4 26 ♘c6+, while in the event of 24...♖e4 25 ♕d2 ♖xe5 (25...♗xa6 26 ♘c6+ +–; 25...♕xa6 26 ♖c7+ +–) 26 ♗xb7 ♖d8 27 ♕xd8+ ♕xd8 28 ♖xd8 ♔xd8 29 b3! ♔d7 30 ♖c4. White has a significant advantage in the ending.

25 ♖xd1 ♗xa6

Taking with the queen loses to the variation pointed out by Lutz: 25...♕xa6 26 ♕xb4+ ♔e8 27 ♖d6 ♕a7 (27...♘d5 28 ♖xa6 ♘xb4 29 ♖b6) 28 ♕b5+ ♔e7 29 ♖b6 ♖b8 30 ♕c5+ ♔e8 31 ♖xe6+.

26 ♕xb4+! ♕xb4 27 ♘c6+ ♔f8 28 ♖d8+ ♘e8 29 ♘xb4 *(D)*



Firstly, we can see that when starting his combination, White had to calculate quite a few variations. Now that the forcing part is over, what has White achieved? At first sight, the result is rather strange: White is a piece down, the queens are off the board, and the attack on Black's king does not look very promising. What White does have for his piece, however, is a pawn, two connected passed pawns on the queenside, and some problems for his opponent in coordinating his pieces. Which is more important, Black's material or White's positional advantages? It is not easy to answer this

question, and so we have exactly the situation we have been discussing in this section of the book. Clearly, in entering this position, Kramnik not only had to handle the calculation of the variations themselves, but also needed to judge the resulting position very deeply. It turns out that Black's position is very difficult.

29...♗e2

He also loses after 29...♔e7 30 ♘c6+ ♔f6 31 b4 or 29...♗c4 30 ♖c8 ♗d5 31 ♘xd5 exd5 32 a5. These variations were again pointed out by Lutz.

30 f3!

Magnificent! Now everything finally becomes clear. Black's bishop, his only effective piece, is deprived of the opportunity to work together with the rest of his pieces, and Black therefore loses.

30...h5

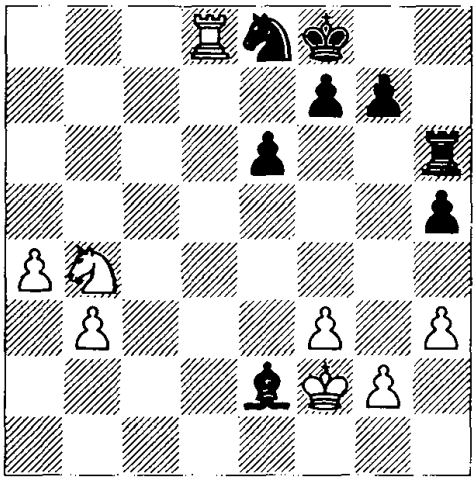
In the variation 30...♔e7 31 ♘c6+ ♔f6 32 b4 ♗c4 33 b5 ♗d5 34 a5 the pawns queen.

31 b3!

Shutting the box!

31...♖h6 32 ♔f2 *(D)*

B



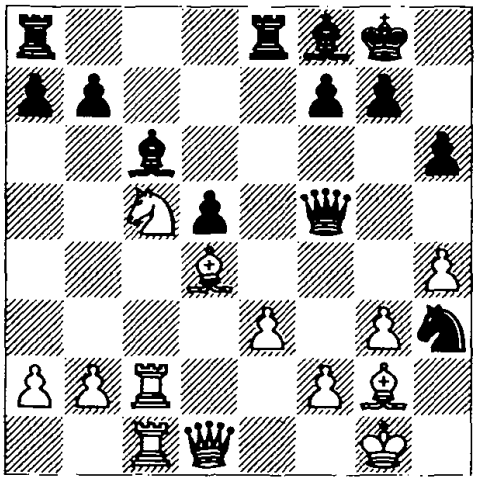
Now we see the full consequences of White's combination. Everything is now clear.

32...♖g6 33 ♔xe2 ♖xg2+ 34 ♔d3 ♖g3 35 a5 ♖xf3+ 36 ♔c4 1-0

The game is excellent in itself, but is especially noteworthy for Kramnik's rejection of the routine continuation at move 24, and his deep and accurate judgement of the position. It is even more impressive, considering that the game was played at a rapid time-limit.

And now an example of a different sort:

W



Zhao Jianchao – Malysheva
Russia vs China 2004

On the previous move, Black was enticed into giving the check 20...♘g5-h3+. Now after 21 ♗xh3 ♕xh3 her chances look very promising, while if White tries to retain the important light-squared bishop and defend the f2-pawn, then after 21 ♔f1? ♗b5+ 22 ♔e1 b6 23 ♘b3 ♗b4+ 24 ♗c3 ♗xc3+ 25 bxc3 ♘xf2 Black wins.

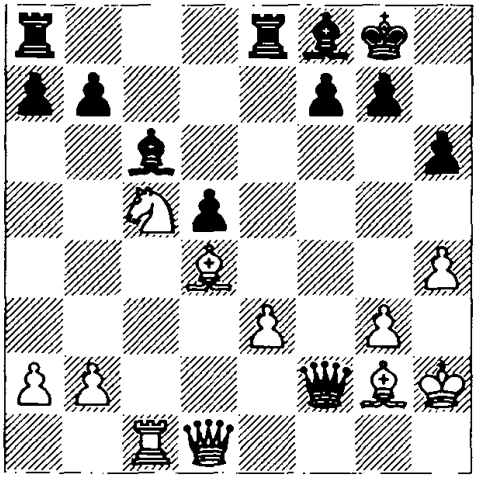
However, there followed instead...

21 ♔h2!

It turns out that on her previous move, Black had fallen into a trap. Her next two moves were forced:

21...♘xf2 22 ♖xf2! ♕xf2 *(D)*

W



23 e4

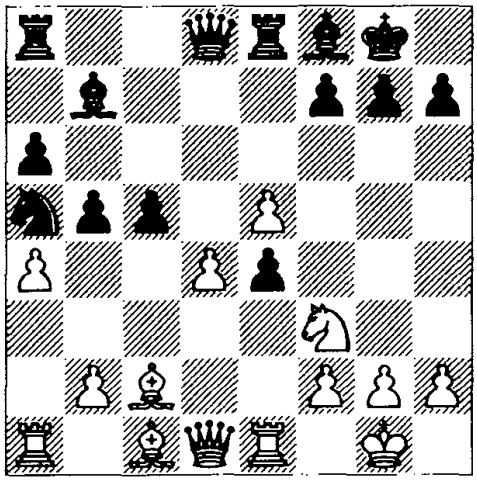
Black had failed to get to the heart of position arising from this short, forcing variation. Her queen is trapped, and in order to extricate it, Black is forced to give back the extra material with interest.

23...♗xc5 24 ♖xc5! ♗a4 25 ♕xa4 ♕d2 26 ♗c3 ♕e3 27 ♖xd5 ♖ad8 28 ♕d1 ♕b6 29 ♕g4 f6 30 e5 fxe5 31 ♗xe5 g6 32 ♕c4 ♖xd5 33 ♗xd5+ ♔h7 34 ♗g8+!

and White won.

In the previous example, an inexperienced player failed to sense the danger in a fairly typical situation. The next case is rather more interesting and instructive in this regard, since it shows an experienced and very strong player incorrectly judging the outcome of complications.

W



Shirov – Onishchuk
Olympiad, Calvia 2004

This position arose as a result of an opening innovation by White. Play develops along original and interesting lines. The following exchange sacrifice is obvious and almost forced:

17 ♖xe4!?

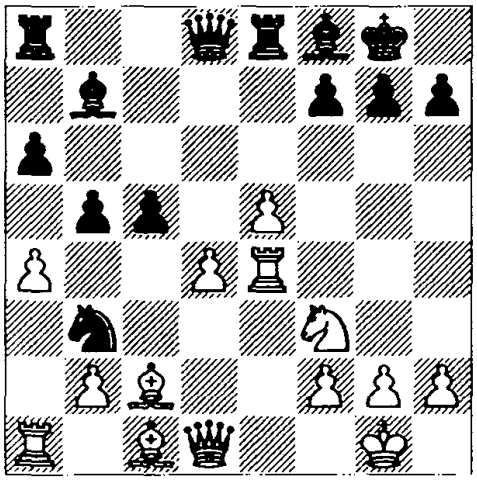
Taking with the bishop is worse, because control of the light squares is extremely important in this position. This is true for both sides. Thus, after 17 ♗xe4?! ♗xe4 18 ♖xe4 ♕d5 Black has excellent compensation for the pawn thanks to his control of the light squares in the centre and on the queenside.

After the text-move, Black too should avoid giving away his light-squared bishop, even for a rook. If 17...♗xe4? 18 ♗xe4 Black must give back the exchange, since he must not allow the typical combination: 18...♖a7 19 ♗xh7+ ♔xh7 20 ♘g5+ ♔g8 (20...♔g6 21 ♕d3+ f5 22 ♕h3 ♕xg5 23 ♗xg5 ♔xg5 24 f4+ +—) 21 ♕h5 ♗d6 22 ♕h7+ ♔f8 23 ♕h8+ ♔e7 24 ♕xg7 ♔d7 25 ♘xf7! ♕e7 26 ♗g5! ♕f8 27 ♕g6 ♗c7 28 ♕f5+ ♔c6 29 d5+.

However, Black instead has available a splendid blow:

17...♘b3! *(D)*

W



The position reached is complicated and rich in possibilities, and is not easy to judge. As a consequence, Shirov rather over-optimistically stakes his chances on a kingside attack, underestimating his opponent's defensive resources. In other words, he wrongly assessed the consequences of his intended play. This led to the following decision:

18 ♗g5?

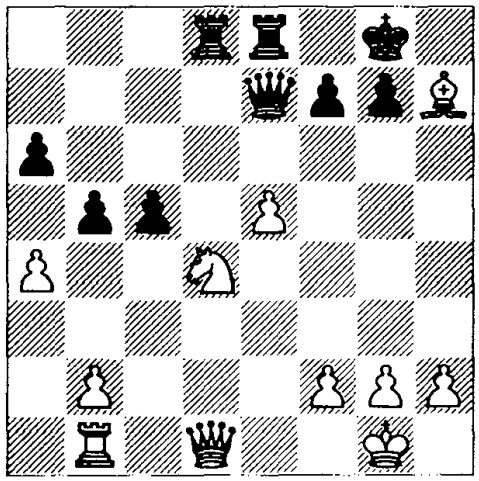
White turns down the draw by perpetual check that can occur after 18 ♖h4! ♗xf3 19 ♗xh7+ ♔h8 20 ♖h3! ♗xd1 21 ♗g6+. A player like Shirov can find such a variation in a few seconds, so one cannot attribute his mistake to any problem in calculating the variation. The problem consists in wrongly assessing the consequences of the different continuations.

18...♗e7 19 ♗xe7 ♕xe7! 20 ♖b1

After 20 ♖a3 Black wins by 20...♘xd4 21 ♘xd4 ♗xe4 22 ♗xe4 ♕xe5!. But now too, White is in trouble:

20...♘xd4 21 ♘xd4 ♗xe4 22 ♗xe4 ♖ad8 23 ♗xh7+ *(D)*

B



23...♔f8!

It may be exactly this moment which reveals the cause of White's mistake. When he headed for this position, it is possible that he only considered 23...♔xh7?. Then after 24 ♕c2+! g6 25 ♘c6 he would have a large advantage.

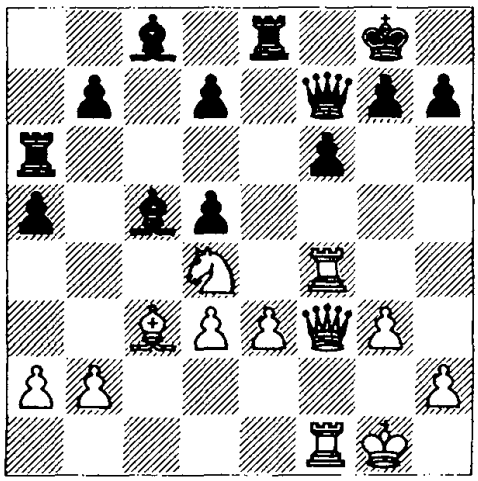
24 ♕f3 ♖xd4 25 ♖e1 ♕g5 26 h4 ♕d2 27 ♖f1 ♖xh4 0-1

It is interesting that the forcing lines beginning with 18 ♗g5? were almost wholly initiated by White, yet they turned out badly for him.

In discussing the problem of judging the position arising at the end of one's calculations, the best summing-up of my advice is the well-known aphorism 'Look before you leap!'.

In conclusion, let us look at one more interesting fragment:

W



Stein – Lepeshkin
USSR Ch, Tallinn 1965

22 ♘f5!

Although it is the most natural move in the position, in order to play it, White has to calculate very accurately. His opponent calculates the very same variations, so it all comes down to who sees further!

22...d6?

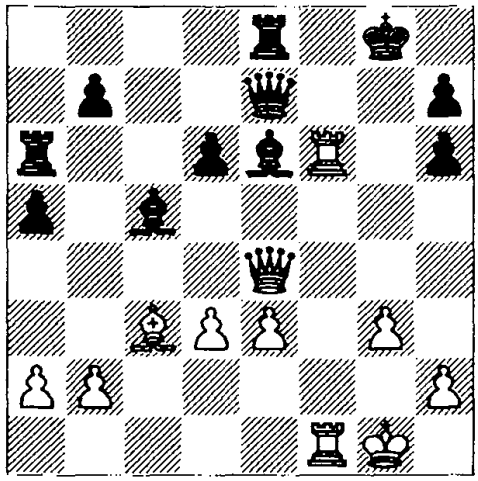
This is also a natural move, but it proves to be the decisive mistake. It is often the case that when balanced on the precipice like this, there is only one correct path. He should avoid obstructing his third rank, even if this means retreating: 22...♔h8 23 ♗d4 ♗f8 (23...d6? 24 ♘xg7! +–), although even here, after 24 g4! White retains the initiative, which was especially dangerous in the hands of Leonid Stein. Now there followed:

23 ♘h6+! gxh6 24 ♖xf6 ♕e7

Or: 24...♖xe3 25 ♖g6+; 24...♗xe3+ 25 ♔h1 ♕e7 26 ♖f7; 24...♕g7 25 ♖f7.

25 ♕xd5+ ♗e6 26 ♕e4 *(D)*

B



The key position, which White has foreseen and correctly judged. There is no defence to a check on g6.

26...♗xe3+

Forced. Not 26...♗f7 27 ♕g4+ ♔f8 28 ♖xf7+ ♕xf7 29 ♕g7+.

27 ♕xe3 1-0

White's attack on the dark squares is irresistible.

One could say that in these last examples, the losing side suffered because of poor calculation of variations. To some extent, this is true, but

such mistakes are often the result of errors in judgement. This connection between calculation and the assessment of its consequences connects the previous topic with the next one.

When to Stop Calculating

At an early stage in the discussion of calculating variations, we posed the question of when and how one should begin calculation. Now the time has come to consider when, and on the basis of which factors, one should stop calculating.

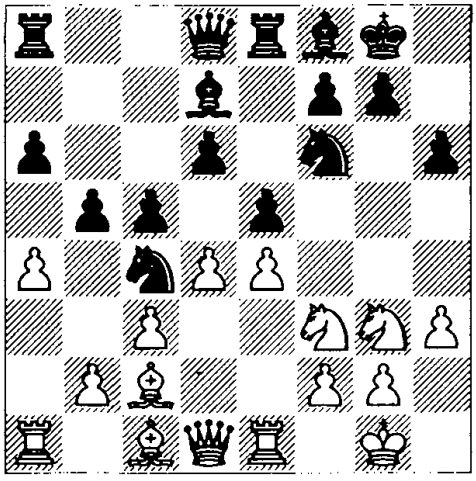
If we calculate more than necessary, we waste time and energy, while if we stop calculating too soon, the consequences can be even worse, for we can miss favourable opportunities for ourselves, or walk into a nasty surprise from the opponent. The following game is an example:

Parma – Geller

Capablanca memorial, Havana 1965

1 e4 e5 2 ♘f3 ♘c6 3 ♗b5 a6 4 ♗a4 ♘f6 5 0-0 ♗e7 6 ♖e1 b5 7 ♗b3 0-0 8 c3 d6 9 h3 h6 10 d4 ♖e8 11 ♘bd2 ♗f8 12 ♘f1 ♗d7 13 ♘g3 ♘a5 14 ♗c2 ♘c4 15 a4 c5 *(D)*

W



This is the Smyslov Variation of the Closed Lopez. Geller also played this line with the bishop on b7. The present position arose for the first time in this game. Geller was familiar with it from his home preparation, whereas Parma was forced to wrestle with unfamiliar problems at the board. One can therefore understand the reasons for his following, rather optimistic, reaction.

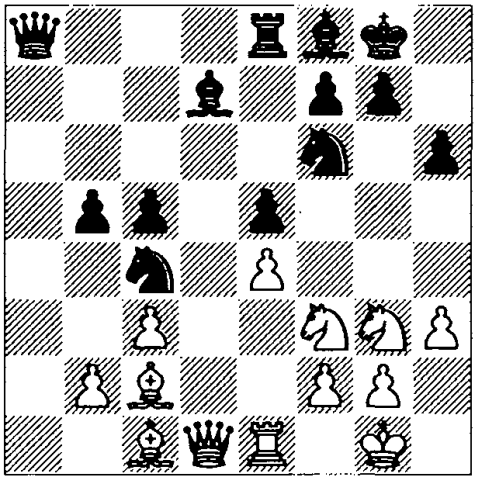
16 axb5?!

In a later game, White played 16 b3 ♘a5! 17 axb5 axb5 18 d5 ♕c7 19 ♗e3 g6 20 ♘d2 ♗g7 21 ♖a2 ♖ec8! 22 ♕a1 ♕d8! 23 ♖c1 ♘b7, reaching a very complicated position with approximately equal chances, Jansa-Geller, Lugano OL 1968.

16...axb5 17 ♖xa8 ♕xa8 18 dxc5 dxc5 *(D)*

Here White could not restrain himself from continuing with his original idea, and he played:

W

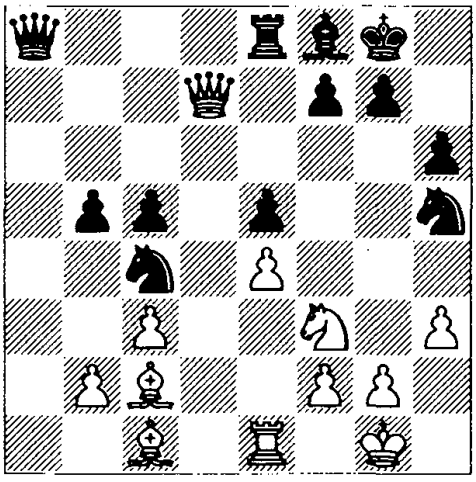


19 ♘h5?

It was still not too late to revert to the typical Spanish idea 19 ♘h4!? ♖d8 20 ♕f3, although in this case, Black already has certain additional pluses compared with usual situations, and his position is slightly preferable.

19...♘xh5 20 ♕xd7 *(D)*

B



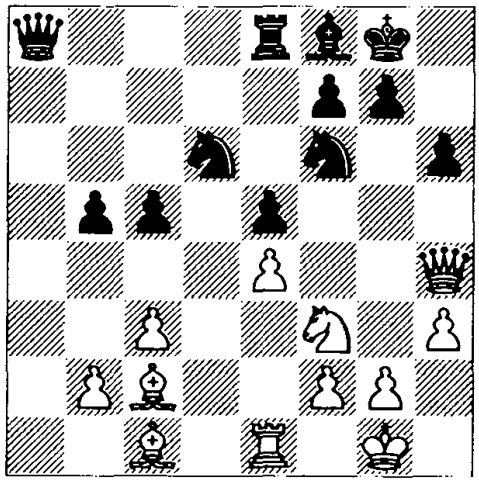
This is the position White was aiming for when he played his 16th move. It is not immediately obvious what is wrong with it: he has the advantage of the two bishops and the b5-pawn hangs. This may not be a lot, but it is something. However...

20...♘d6!

Suddenly it transpires that White did not look sufficiently deeply into the position, and just one move beyond his 'horizon', he already has to amend his assessment significantly. His queen is in trouble (a characteristic variation is 21 ♖d1? ♘f6 22 ♕c7 ♖c8 23 ♕b6 ♘d7), and has few squares.

21 ♕g4 ♘f6 22 ♕h4 *(D)*

B



22...♖e6!

This excellent manoeuvre dashes all White's hopes of counterplay and his queen now proves to be out of play. Geller gives an interesting and very characteristic comment: "A very strong move in such positions, of a type which Spassky has often made." Geller had an enormous knowledge of chess!

23 ♘d2 c4 24 ♘f1?

White loses a tempo, which turns a difficult position into a practically lost one. He should immediately improve the position of his queen by 24 ♕g3!?. Now Black breaks through powerfully on the queenside and White has no defence.

24...b4! 25 cxb4 ♘b5 26 ♗d2 ♕a2 27 ♕g3

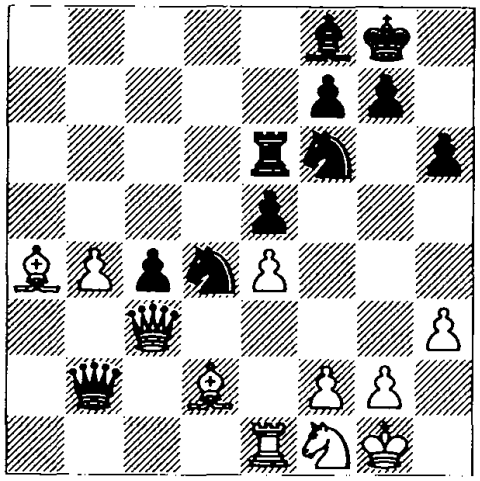
Black also has a great advantage after 27 ♘e3 ♕xb2.

27...♕xb2 28 ♗a4 ♘d4!?

28...♗xb4 29 ♗xb5 ♗xd2 is equally strong.

29 ♕c3 *(D)*

B



29...♕a2!

This is the point of Black's 28th move. White is lost.

30 ♕a1

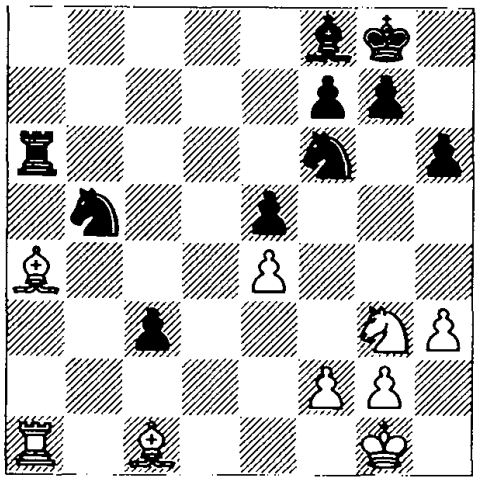
It is important that he cannot play 30 ♖a1? ♘e2+ 31 ♔h1 ♘xc3.

30...♕xa1 31 ♖xa1 ♖a6 32 b5

A pawn sacrifice born of desperation. He loses immediately after 32 ♘g3 ♘b3 or 32 f3 c3.

32...♘xb5 33 ♘g3 c3 34 ♗c1 *(D)*

B



34...c2!?

Also good was 34...♘d4!? 35 ♖a2 ♘d7 36 ♗b3 ♘xb3 37 ♖xa6 ♘xc1.

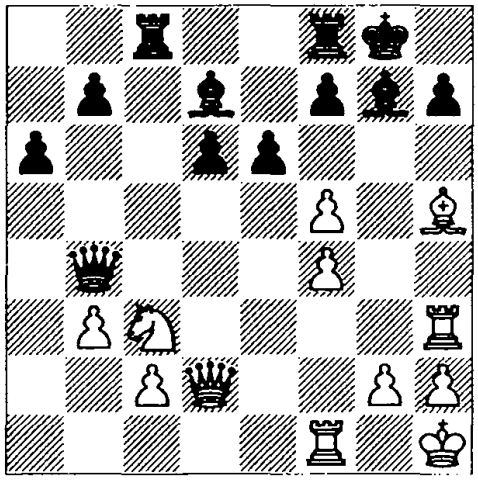
35 ♗b2 ♘d4 36 ♗xc2

After 36 ♔f1, Black wins with 36...♘b3!, and on 36 ♖a2 by 36...♘d7! 37 ♗b3 ♖b6.

36...♖xa1+ 37 ♗xa1 ♘xc2 38 ♗xe5 ♘d7 0-1

The finish of the next game only takes four moves, but this small piece of calculation contains great richness.

W



Tal – Platonov
Dubna 1973

Black's positional superiority is the first thing which strikes one. His dark-squared bishop is magnificent, and his pressure on the c-file looks almost decisive. What can White do? His only chances lie on the kingside, but how serious are they? What weaknesses in the black position are there on which White can build his hopes? Frankly, speaking, not many, but trying to hold Black's pressure on the other flank by 20 ♖g3 ♔h8 21 ♖ff3 offers very few prospects, after, for example, 21...d5. But Tal would not have been Tal without digging up striking resources even in such a terrible position:

20 f6!

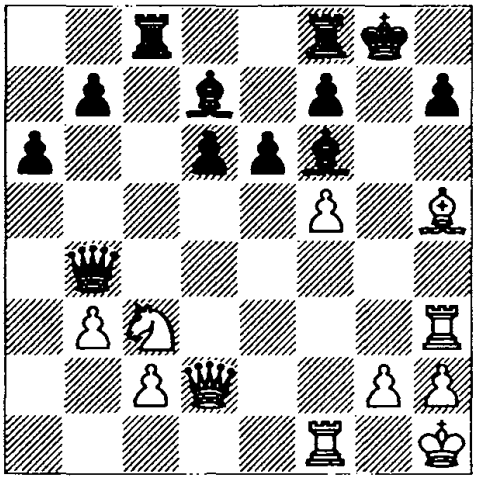
Absolutely essential, if White is planning to put all his hopes on a kingside attack. He must open lines for his queen and rook.

20...♗xf6 21 f5! *(D)*

Without this follow-up, the previous move makes no sense.

Now that the white pieces have come somewhat to life, and there is a chance of them combining together on the kingside, Black needs to do some more work calculating variations. I would emphasize that despite the heroics of the

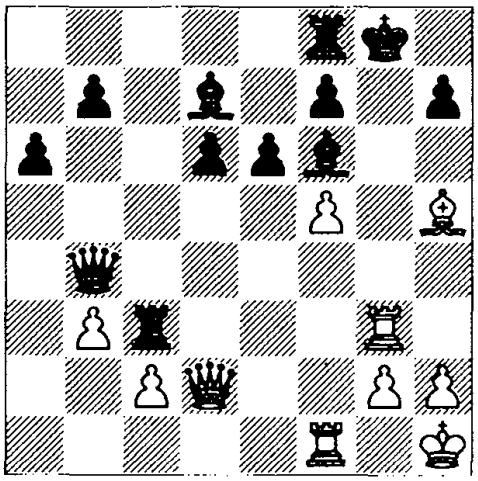
B



white pawns, the position has only become sharper, and its fundamental assessment has not changed. Black had, and still has, the advantage. All that has changed is the difficulty he faces in realizing that advantage. White has done his best to complicate his opponent's task, but with correct play, Black should nonetheless convert his superiority. 21...♗xc3? is now a serious mistake, since after 22 ♕g5+ ♔h8 23 ♗g6! fxg6 24 ♕xg6 White wins. 21...♕d4!? looks very good, transferring the queen to the most important diagonal on the board. After 22 ♖d3 ♕e5 23 ♖xd6 ♗c6 24 ♖d3 ♖cd8 Black has repulsed all of his opponent's attempts at active play, and retains the advantage. But why settle for just an advantage? Why not take a piece, especially as there seems no reason not to? There followed:

21...♖xc3? 22 ♖g3+ *(D)*

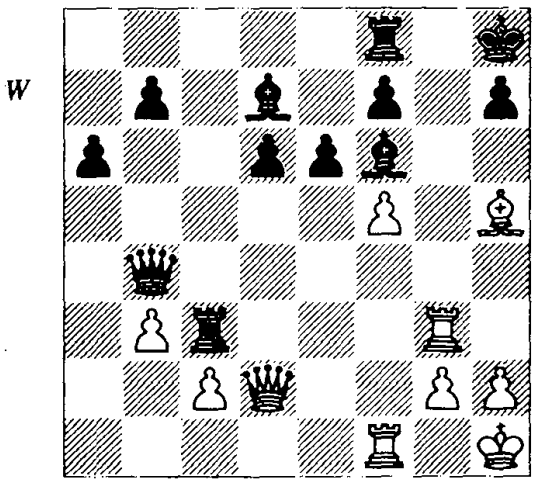
B



Now after 22...♗g7 23 ♖xg7+ (worse is 23 f6 because of the stunning reply 23...♖f3!! with

the variation 24 ♖xg7+ ♔h8 25 ♕d1 ♖xf1+ 26 ♕xf1 ♖g8 27 ♖xf7 ♗c6 and Black is better) 23...♔xg7 24 ♕g5+ ♔h8 25 ♕f6+ (or 25 ♖f4 ♕xf4 26 ♕xf4 ♖xc2 27 ♕g5 ♖g8 28 ♕f6+ ♖g7 29 ♕d8+ ♖g8 30 ♕f6+ ♖g7 31 ♕d8+ =) the position is a draw. But Black was not satisfied with this and instead played what he had planned earlier:

22...♔h8? *(D)*



23 ♕h6

However, after this reply, which his opponent had prepared in advance, Black realized to his horror that in answer to his intended 23...♖xg3 White does not take the f8-rook, but instead plays the totally unexpected and stunning move 24 ♗g6!!, winning out of hand! As a result, Black was forced to resign.

1-0

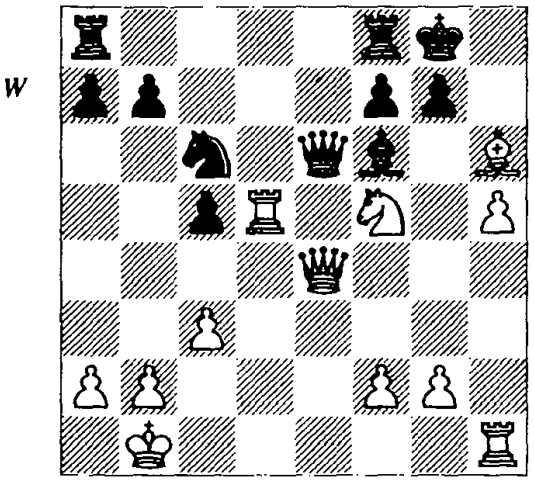
This game is a convincing illustration of the point made by many great masters, that *at the end of the day, everything in chess is decided by tactics* (it should be added that over the years, the term 'tactics' has generally been taken as synonymous with calculation, although we have already discussed the fact that the two should not be confused).

In conclusion, an example of magnificent insight into the heart of the position.

In the following diagram White carried out a splendid combination.

25 ♕g4!! ♕xd5

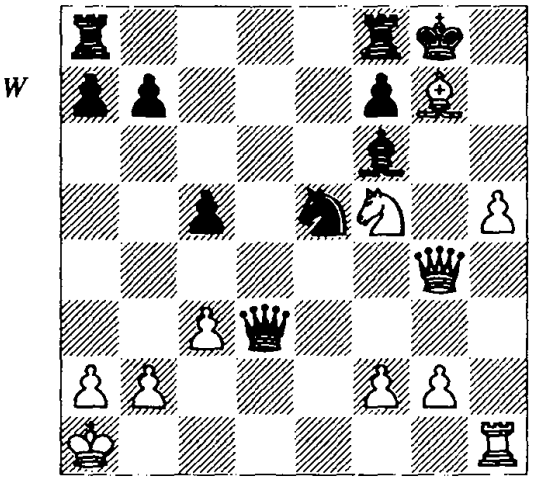
Black gains nothing by avoiding the main line: 25...♘e5 26 ♖xe5 ♕xe5 27 ♗xg7 ♗xg7



Milman – Fang
Connecticut 2005

28 h6 or 25...♔h7 26 ♗xg7 ♖g8 27 ♖d6 ♖xg7 28 ♖xe6 ♖xg4 29 ♖xf6.

26 ♗xg7 ♕d3+ 27 ♔a1 ♘e5 *(D)*



When White was calculating the consequences of his 25th move, it is probable that this position was his first major stopping-point. Up to now, the calculation has been simple enough, proceeding along a single line, but now it gets more complicated. White has to consider several questions:

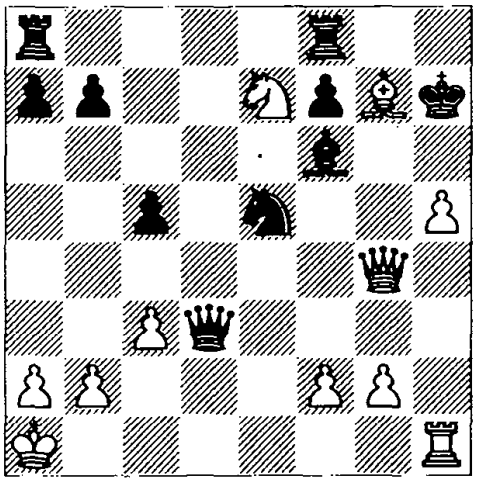
a) What possibilities are there to maintain the attack? Clearly, these must all involve forced play.

b) How should the prospects of each of these continuations be assessed?

At first sight, the picture does not look too good. If 28 h6 (threatening 29 h7#) 28...♔h7,

what then? White has no more checks, nor even any ideas for further threats, so we can give up on that line. A similar picture emerges after the alternative 28 ♘h6+ ♔h7. Only one try remains:

28 ♘e7+ ♔h7 *(D)*



And now what? If there is nothing here, then we must give up on the whole tempting line starting with 25 ♕g4. However, there is something after all!

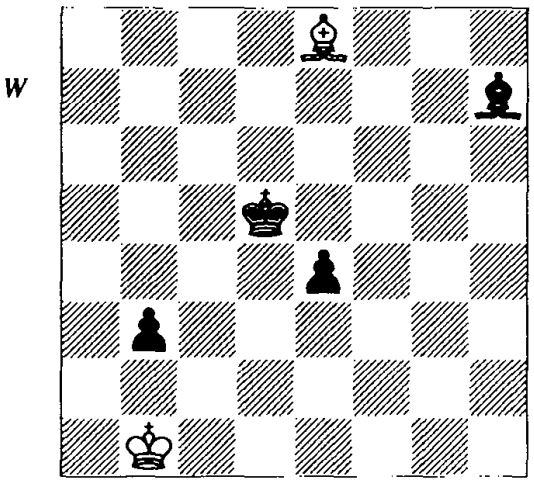
29 ♕g6+!! fxg6 30 hxg6++ ♔xg7 31 ♖h7# (1-0)

A marvellous creative achievement! But what is really important about this example for our purposes is that when White reached the position after 28 ♘e7+ ♔h7 in his calculations, he may well not immediately have seen the queen sacrifice on g6. If so, in the situation of a tournament game, with limited thinking time, he could well have stopped his calculations at this point, and the game would instead have ended in a draw by repetition after 25 ♕f3 ♘e5 26 ♕e4 ♘c6, etc. This is one of the many problems which can arise in the process of calculation. It is not easy to say how one can develop the ability to feel the critical moments, when one should continue searching for additional resources in a variation, if none appear at first sight. In such situations, the main factors are experience and intuition. Both of these elements, especially the second, are very interesting. However, detailed discussion of these would take us too far afield from our main subject in this book.

Calculation by Stages

However, this is not all that there is to say about the previous fragment. When analysing it, one can distinguish two stages in the calculation process. The first, as we have already said, is from White's 25th move to Black's 29th, and the second, from White's 29th to 31st moves. These stages are short, but clearly defined.

We shall see how calculation by stages works in the following example:



White to play and draw
A. Yaroslavtsev
Shakhmaty v SSSR, 1947

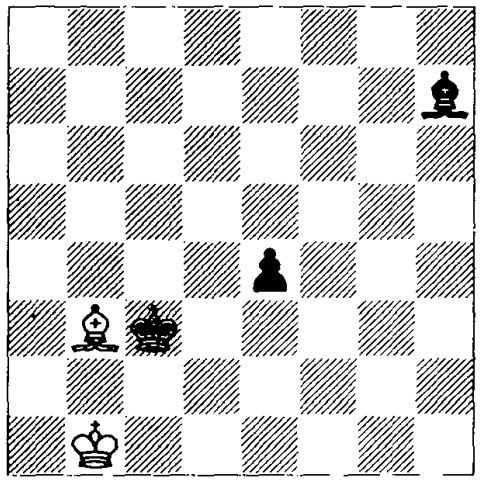
First we need only to choose between what are clearly the only two candidate moves: 1 ♔b2 and the bishop check. Because the consequences of the variation 1 ♔b2? e3 2 ♗b5 (or 2 ♗h5 ♔c4) 2...♔c5 followed by 3...♔b4 are obviously unfavourable for White, we must play the bishop check *even without attempting to calculate its consequences – we simply have no other choice*:

1 ♗f7+ ♔d4 2 ♗xb3 ♔c3 *(D)*

A draw results from 2...e3+ 3 ♔c1.

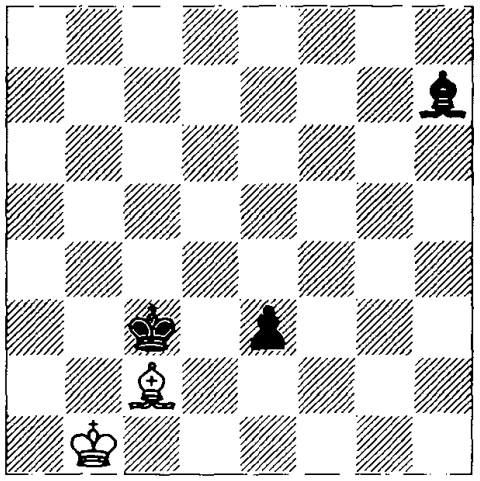
We have now come to the end of the first stage of the calculations, which is forced for both sides.

At the start of the second stage, there is also no need for far-reaching calculation. We only need to identify the main problem: the threat of 3...e3+ and 4...c2 (nor must we forget the



bishop!) and concentrate on that. There are now two variations. The first is 3 ♗d1 ♔d2 4 ♗h5 e3+ 5 ♔b2 ♗c2, which clearly leads to a lost position. As with stage one, therefore, we can make the next move without further calculation:

3 ♗c2! e3 *(D)*



Now the third stage starts, in which there is again one choice:

4 ♔c1! e2

Now the same again:

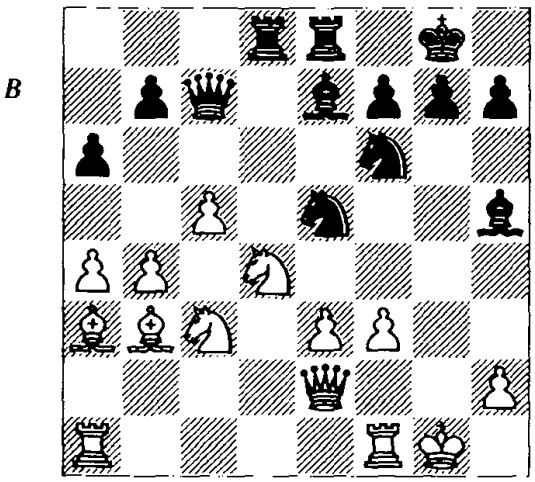
5 ♗d1!

And White draws. We must just check that Black cannot win by going into a 2♗ vs ♗ ending:

5...e1♗!? 6 ♗a4 ♗f5 7 ♔d1 ♗d2 8 ♔e2

In this example, we saw something new and quite interesting. It transpires that it is far from necessary always to calculate long variations. In the example just seen, all that we had to do was calculate one small point at a time, stop, look around, and then calculate the next stage. The reason, and the merit, of this is that *the further one calculates, even each extra move, makes it more difficult for the player to see clearly all of the details of the position.* Consequently, whenever the character of the position allows it, the technique of calculating by stages is very useful. We have seen too that there are situations where it is possible to take the decision to play a certain move without even calculating its consequences. Such decisions can be taken on the basis of an understanding that all other moves are unfavourable. Of course, these situations do not arise all that often and, when they do, it is usually in positions with relatively little material on the board.

If there is more material on the board, the method of calculating by stages is often not appropriate, but instead, other laws apply to such positions.



Riazantsev – Rublevsky
European Ch, Warsaw 2005

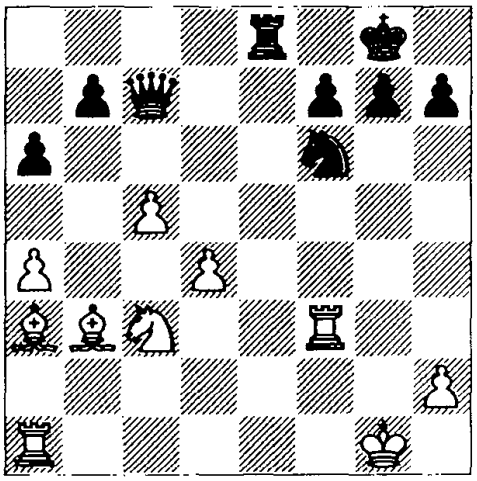
Before us we have a wholly different situation from the previous example: a position with many pieces, and no pawn-chains, where events could develop in any part of the board.

19...♗xc5!!

Black starts a multi-stage operation, which from the start requires accurate and far-reaching calculation, and after that, a correct assessment of the resulting position.

20 bxc5 ♖xd4 21 exd4 ♘xf3+ 22 ♕xf3 ♗xf3 23 ♖xf3 *(D)*

B



At first glance, Black has walked into trouble. White only needs to unleash his bishop-pair and it will all be over. However...

23...♘g4!

Without this move, Black's whole operation would make no sense. The first stage is over and Black had to do more than just assess this position; he also had to foresee this brilliant stroke and assess its consequences.

24 ♗xf7+

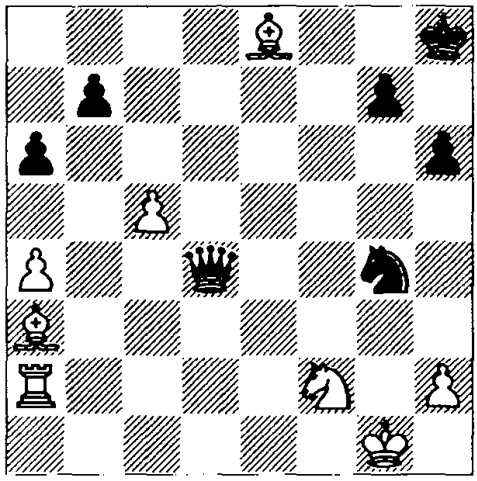
On 24 ♖g3? the reply 24...♕f4 25 ♔h1 (25 ♖f1 ♖e1!) 25...♖e3! wins. These variations were pointed out by Maxim Notkin. They show that Black had appreciated the fact that White's pieces are temporarily tied up, and also how his own forces can exploit this.

24...♔h8 25 ♗xe8

A very important variation (again pointed out by Notkin) is 25 ♖f2 ♘xf2 26 ♗xe8 ♘g4 27 ♖a2 and here again, a decisive role is played by the thematic blow 27...♕f4! after which White's uncoordinated forces cannot defend his many weaknesses; for example, 28 ♘d1 ♕xd4+ 29 ♘f2 h6! *(D)*.

It turns out that White must lose a piece: 30 ♗h5 ♘xf2 31 ♖xf2 ♕a1+; 30 ♗c1 ♘xf2 31 ♖xf2 ♕g4+ 32 ♔f1 ♕d1+ or 30 ♗g6 ♘xf2 31 ♖xf2 ♕d1+ 32 ♔g2 ♕g4+. This is a very good example of the importance of piece coordination. It is also an example of magnificent and deep penetration into the secrets of the position. I would repeat that calculation alone is not

W

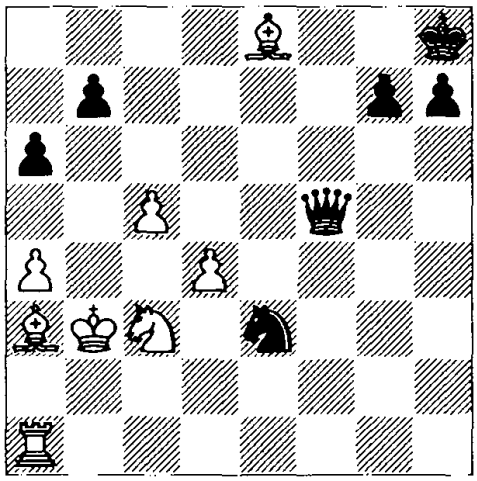


enough, and a major role is also played by the assessment of the various intermediary positions. It is not always easy to make such correct judgements, for it requires a very well-developed positional feel. Now a new stage begins, leading by force to a clearer situation:

25...♕xh2+ 26 ♔f1 ♕h1+ 27 ♔e2 ♕g2+! 28 ♔d3 ♕xf3+ 29 ♔c4 ♘e3+ 30 ♔b3 ♕f5! *(D)*

Here the third stage ends. White's forces remain uncoordinated, while Black has a queen and knight which cooperate perfectly. His chances are therefore better, although it is not easy to tell immediately how much better.

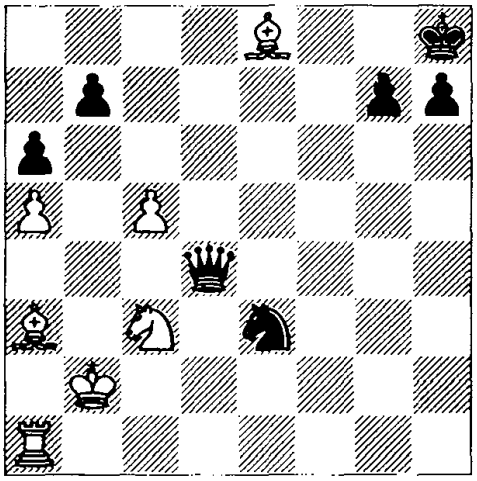
W



Looking at this position closely, it soon becomes clear that it is not easy for White to defend against the highly unpleasant threats of checks on c2 and e6. The problems are well illustrated by the variation 31 a5, trying to free the a4-square for the bishop. After 31...♕c2+!

32 ♔b4 ♕d3 33 ♔b3 ♕c4+! 34 ♔b2 ♕xd4 *(D)* we have another unusual and very interesting position, calculation of which shows that here too, the excellently coordinated black pieces overpower their less well coordinated opposite numbers:

W



a) 35 ♖c1 ♘c4+ 36 ♔a2 ♘xa3 37 ♔xa3 ♕d2 38 ♘a2 ♕e3+.

b) 35 ♗h5 ♕d2+ 36 ♔b3 ♕c2+ 37 ♔b4 ♘d5+! 38 ♘xd5 ♕e4+ 39 ♔c3 ♕e5+ 40 ♔c4 ♕xa1 41 ♗b4 ♕f1+ 42 ♔d4 ♕f2+ 43 ♔e4 ♕h4+ 44 ♘f4 g5.

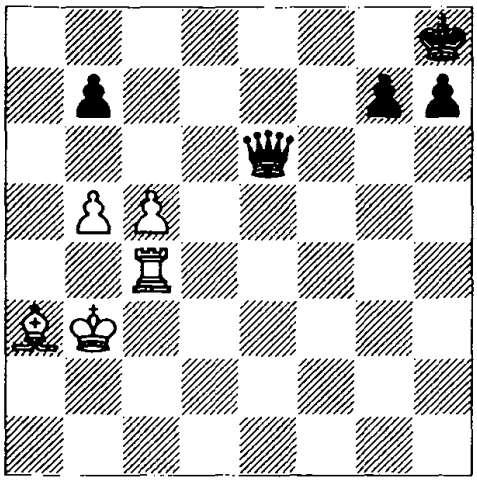
c) 35 ♔b3 ♕c4+ 36 ♔b2 ♕d3 37 ♗a4 ♕d2+ 38 ♔b3 ♕c2+ 39 ♔b4 ♘d5+! 40 ♘xd5 ♕e4+ 41 ♔c3 ♕e5+ 42 ♔b4 ♕d4+ 43 ♔b3 ♕xd5+!.

31 ♖a2?

This continuation loses quickly. The only real chance of resistance was the variation similar to the game, but with the white rook on a better square: 31 ♖c1!. Then after 31...♕e6+ 32 d5 ♘xd5 (32...♕xe8? would be a bad mistake, since after 33 ♖e1 White has a large advantage) 33 ♘xd5 ♕xd5+ 34 ♖c4 (the availability of this important move is the difference from the game continuation) 34...♕e6 35 ♗b5 axb5 36 axb5 *(D)* leads to a difficult position.

It is not easy to assess. I am far from sure that Black should win. Further analysis of it is outside the scope of our discussion. But even if White can save the game, Black's energetic play deserves the highest praise. Up to now, White had defended as well as possible and has provided us with highly instructive material.

B



Now the game is decided without great difficulties for Black:

31...♕e6+ 32 d5 ♘xd5! 33 ♖e2

Now in the event of 33 ♗d7 ♕f7 34 ♗e8 ♕g8 Black wins without any problem.

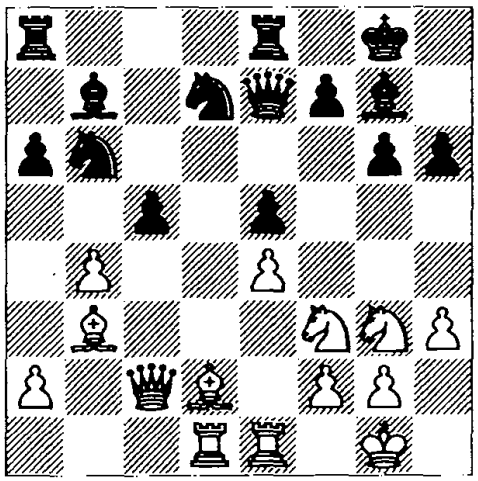
33...♘e3+ 34 ♔b2 ♕xe8 35 c6 ♕xc6! 0-1

Black resigned in view of 36 ♖xe3 ♕b6+. This was a first-class achievement by Sergei Rublevsky.

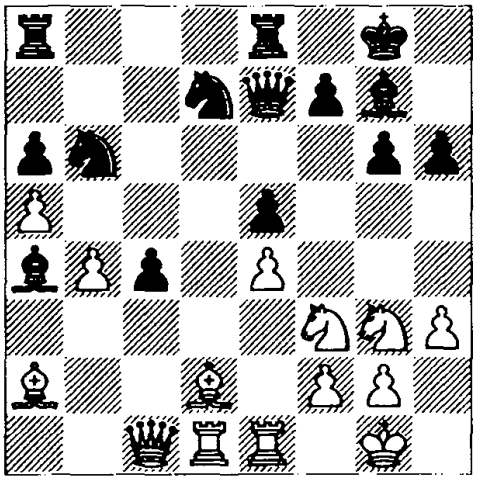
The conclusions which follow from this will be useful for a better understanding of the problem of 'calculation by stages'. Firstly: it is simply not possible to calculate all the variations which constantly arise at every stage of the game. Secondly, this means that such a method of calculation by stages must depend to a large degree on assessment of the position arising at the end of each stage. Thirdly: even assessing such positions is often not easy, and the player must frequently rely on intuition. Fourthly: it is hard to get by without intuition, based largely on experience and knowledge, and a player must therefore constantly work to enlarge his baggage of knowledge of the most varied positions, not merely openings. And finally: *the method of calculating by stages aims to enable the player to judge and calculate in conditions of maximum clarity.* This clarity enables the player to begin calculation of the next stage almost as though the new position were standing before him on the board, which makes his work much easier.

The next example reveals another extremely important aspect of this subject:

W



B



Karpov – Spassky
Moscow teams 1973

With his last move, 24...c6-c5, Black struck at his opponent's position. In order to fight for the initiative, Karpov now took a remarkable decision, requiring excellent calculation and, no less important, accurate judgement of the positions arising out of the different variations.

25 a4!

As we shall soon see, with this move, White prepares to sacrifice material.

25...c4

This continuation is the most principled, but this does not necessarily mean that it is best. In the event of 25...cxb4, Karpov gives 26 a5 ♖ac8 27 ♕a2 ♘a8 28 ♗xb4! ♘c5 29 ♖c1 with a decisive advantage. But as soon becomes clear, the path chosen by Black is also unfavourable. He should have played 25...♖ac8! and after 26 a5 ♘a8 Black's pieces would be much more harmoniously placed than occurred in the game, and White would have only a small advantage.

26 ♗a2 ♗c6 27 a5!

This move was planned by White when playing his 25th move. It is actually forced, since after 27 ♗xc4 ♘xc4 28 ♕xc4 ♗xa4 Black is better because of his two bishops.

27...♗a4 28 ♕c1 *(D)*

This position arises by force after Black's 25th move. It has a clearer character than the initial position. Black now has a major choice. One can say that what we have is a case of calculation by stages, with the first stage now over.

28...♘c8

This is stronger than 28...♗xd1 29 ♖xd1 ♘a4? (correct is 29...♘c8 30 ♗xh6, transposing to the game), when the following possibilities arise:

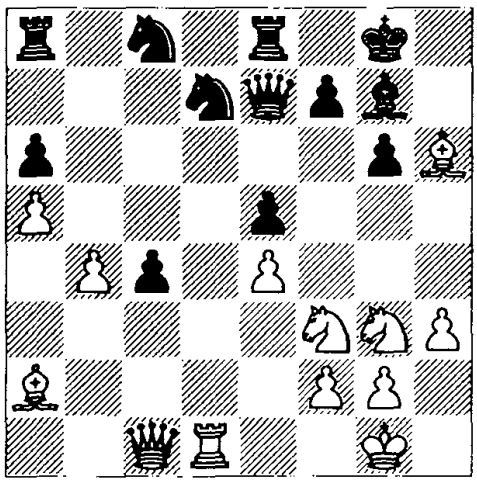
a) 30 ♗xh6 ♗xh6 31 ♕xh6 and now Karpov indicated the line 31...♘f8 32 ♖c1 with an attack. But if Black plays 31...♖ec8! the position is completely unclear.

b) 30 ♕c2! is significantly stronger: 30...c3 31 ♗e1 ♘b2 32 ♖d5! and Black is in trouble after both 32...♘f6 33 ♗xc3! ♘xd5 34 ♗xd5 and 32...♖ec8 33 ♗xc3 ♘c4 34 ♕d3. Incidentally (and this is important for our theme), Karpov's analytical error suggests that when playing his 25th move, he had not calculated all of the possible variations, but relied partly on his intuition that the position reached after his 28th move was good for him. This was an eminently practical thing to do. There is also little doubt that had Spassky chosen this variation, 30 ♕c2! would not have escaped Karpov's attention! These considerations support the view that this game is an example of the technique of calculation by stages.

29 ♗xh6 ♗xd1 30 ♖xd1 *(D)*

Here too we have the end of a short but clear stage, from Black's 28th-30th moves, and this position arises by force after his decision at the start of the stage. Let us try to assess it. For the exchange, White already has one pawn, and is about to collect another on c4. If he manages to do so, his light-squared bishop will become very powerful, looking not only at the weakened position of the black king, but also at the

B



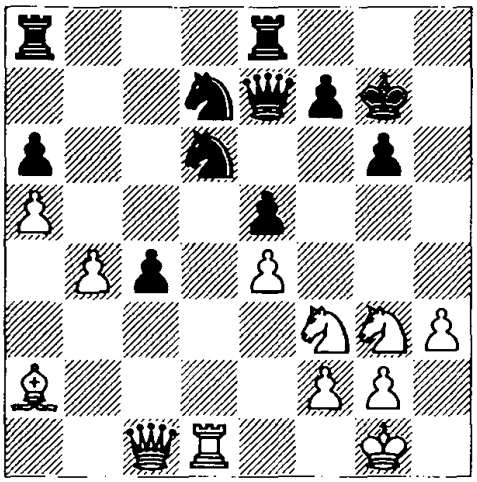
a6-pawn. If that falls, White will have two connected passed pawns. An important role is played by the scattered, disunited black forces. But these last two factors are both bound up with the question of whether Black can play 30...♘d6. There is not the slightest doubt that the importance of this factor was clear to both players. And since after Black's 35th move, neither side has had very much choice, the main line leads virtually by force to this position and to the issue of Black's 30th move. Thus, the critical position for all that has happened arises after 30...♘d6. Can one just judge this position at first sight? Undoubtedly not. Everything depends on whether Black can avoid losing material along the d-file, and this cannot be determined without further calculation. Thus, we have another example of the fact that in complicated positions, a reliable assessment is impossible without calculating variations. Furthermore, when at move 25 the two players entered these forcing lines, both had to foresee this very position and decide what was going on. As the game shows, only White in fact managed to do this.

30...♘d6?

Black, on the other hand, commits a decisive mistake. However, analysis shows that his position was bad anyway. Thus, after 30...♖a7 the reply 31 ♗xc4! seems very powerful (Karpov gives 31 ♗xg7 ♔xg7 32 ♕xc4 which appears insufficient because of 32...♘b8! and Black untangles his pieces; here again, we see that Karpov relied as much on intuition as on concrete calculation, the importance of which appears later!) and after 31...♘d6 Fritz's suggestion 32 ♗g5! ♗f6 33 ♗e3 is very strong, with an obvious advantage to White. In answer to 30...♘f8 there follows 31 ♗xg7 ♔xg7 32 ♕xc4 ♖a7 33 ♖d5!? and Black is under strong pressure, while after 30...♘f6 31 ♗xg7 ♔xg7 32 ♕g5! White also has a strong initiative. It only remains to consider the preliminary exchange of bishops: 30...♗xh6 31 ♕xh6 and now 31...♘d6, but then after 32 ♘g5 Black is in a bad way: 32...♘f8 33 ♘h5! gxh5 (33...f6 34 ♖xd6! +–) 34 ♖xd6 ♖ec8 35 ♖f6 or 32...♘f6 33 ♖xd6! ♕xd6 34 ♗xc4 ♖a7 35 ♕xg6+ ♔f8 36 ♕h6+; White wins in both cases.

31 ♗xg7 ♔xg7 *(D)*

W



There now followed an effective and unexpected blow:

32 ♕g5!!

Clearly Spassky expected only 32 ♕d2?. Then after 32...♘f6 33 ♕xd6? ♖ad8 Black wins. Now it all ends quickly and unstoppably:

32...f6

It was more stubborn to try to defend the c4-pawn by 32...♖ac8, but even then White wins after 33 ♖xd6! ♕xg5 34 ♘xg5 ♘f6 35 ♘e2 (or 35 ♖xa6).

33 ♕g4! ♔h7

Or: 33...♖ac8 34 ♖xd6 +–; 33...f5 34 exf5 +–.

34 ♘h4 1-0

After 34...♖g8 White wins immediately with 35 ♖xd6! ♕xd6 36 ♘hf5!, although 35 ♗xc4 is also good enough.

Although we have already pointed out many different considerations while going through this game, there is one other aspect which is also well worth discussing in this context. We have already seen that the calculation of the variations between White's 25th and 32nd move, together with the consequences thereof, can be carried out by stages. We can identify the stages, and there are also indirect clues that this is how Karpov approached the position (see the tactical errors pointed out in his notes). But at the same time, the main line of the play was very accurately played by Karpov, and it is impossible to imagine him playing his 25th move without having seen his 32nd, and its consequences, as well! So how do we reconcile the theory of calculation by stages with the accuracy of the calculation of the main line? Can we regard it as a hybrid approach, under which a clearly defined main line had to be worked out in detail, while the accompanying sidelines were calculated by the stage method? If this seems a somewhat unlikely theory, I am not as yet saying that it is definitely the truth. Rather, I would suggest that each reader relies on his own experience. Do not similar things quite often occur in your own games? Furthermore, isn't it the case that we are constantly correcting and refining the analysis of the games of even the greatest players, while at the same time, the main line of those games turns out to be fully correct? This only goes to show that not only can no player calculate everything accurately, but also that he does not need to. The human player approaches the game by concentrating primarily on the main line of the development of events. How well he can do this, and how clear and precise the line will be, depends on the position. The rest he has to leave to his judgement and intuition. For a human player this is essential, since his calculating abilities have a limited horizon and no other approach is within his capabilities.

It should not be thought that we have come up with anything sensational here. We have simply tried to describe one of the laws of human thinking when calculating variations: to try to work out the main line in as much detail as possible, and leave the sidelines to one's judgement and intuition, dealing with them by means of the stage approach. It is exactly this part of my suggestion which is the most revolutionary and of the greatest practical importance.

In conclusion, I would like to say that the subject of calculation by stages is of particular practical value, since it makes one's work at the board easier, and therefore raises its quality.

Concrete Action to Realize an Advantage

This topic is relevant to players of all levels, because there has never been a chess-player who has not missed a win in a superior position, either through miscalculating, or through failing to detect in time the right moment to go over to *concrete action to realize his advantage*. And such concrete action inevitably requires calculation. Furthermore, there are many chess-players who are very good at building up winning positions, but who then frequently fail to make the most of their chances, and then frequently end up boring everybody around them by complaining about how 'unlucky' they are. But the real answer is summed up very succinctly in the book *Kramnik: My Life and Games* by Kramnik and Damsky, where on page 145, annotating his magnificent game against Anand at Las Palmas 1996, Kramnik writes: "the time had come to calculate some variations." This section therefore deals with the problem of calculation of variations as part of realizing an advantage.

Firstly, we shall look at an example of the bitter disappointments which can await a player who does not cope with this task very well.

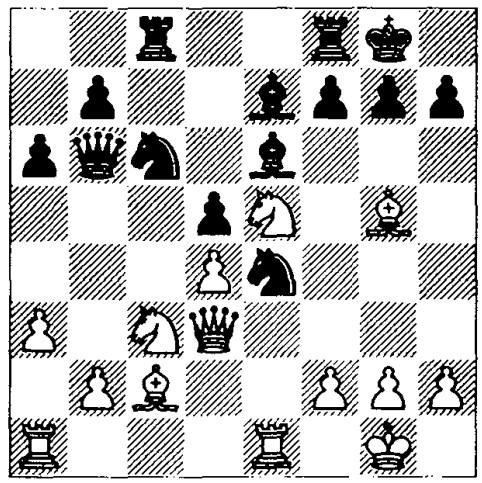
In the diagram on the following page White lands a simple, typical, but nonetheless effective blow:

16 ♘d7! ♗xd7

Black is even worse off after 16...♕xb2 17 ♘xe4 dxe4 18 ♕xe4 g6 19 ♗xe7 ♘xe7 20 ♘xf8 ♔xf8 21 ♗d3.

17 ♘xd5 ♕xb2

This is the first critical moment, after White's successful handling of the first stage of the tactical operation. He must now choose between several continuations.

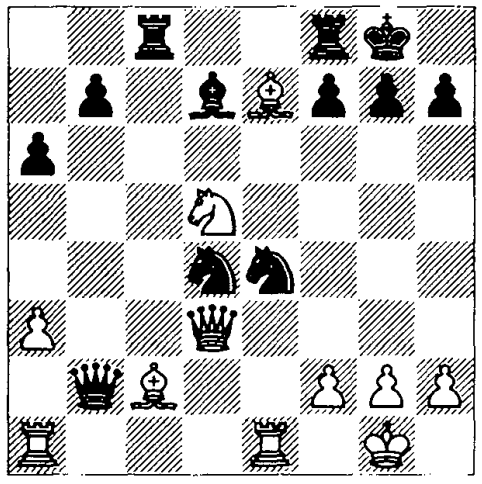


Ulybin – Shaposhnikov
Russia Cup, St Petersburg 2003

18 ♗xe7

Nothing is promised by 18 ♘xe7+ ♘xe7 19 ♗xe7 ♖xc2, but 18 ♖ab1! is stronger than the text-move: 18...♕xb1 (18...♕a2? is bad: 19 ♕xe4 f5 20 ♘xe7+ ♘xe7 21 ♕xe7 and White wins) 19 ♗xb1 ♗xg5 (Black also has a difficult position after 19...♘xg5 20 h4 ♗e6 21 hxg5 g6 22 ♘xe7+) 20 ♕xe4 g6 21 ♘e3 and White's advantage is indisputable, although he still faces a difficult technical task.

18...♘xd4! *(D)*



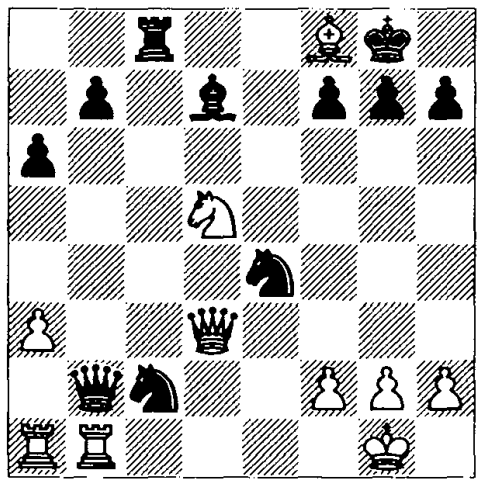
19 ♗xf8?

While on the previous move White missed the chance of a clear and lasting advantage, he did not as yet seriously spoil anything, but this move is a much more serious error. These things happen over and over again in chess. One sees the typical pattern: first, a small inaccuracy, then a more serious error, and then an outright mistake, a kind of snowball effect. Here, White still had the highly pleasant variation 19 ♕xe4! ♘xc2 20 ♖ab1 ♘xe1 21 ♖xb2 ♖c1 22 g4 (only move) 22...♗c6 23 ♖b1! (if 23 h3 ♘f3++ 24 ♔g2 ♖d1 Black has counterplay) 23...♗xd5 24 ♖xc1 ♗xe4 25 ♖xe1 ♗c6 26 ♗xf8 and White has good winning chances in this endgame.

On the previous move, White did not squander the win. But compare the difficulties he faces in the above variation with those which could have arisen just one move earlier. It is easy to see that there is a great difference. The real criticism of White's 18th move should be from the practical point of view, in that it made his victory significantly more difficult, even if theoretically, it did not actually spoil anything. We have already discussed this in passing, but here I shall repeat the point, because it is very relevant to this section: in trying to realize an advantage, one should strive to find the most effective and reliable route *for oneself*, trying not to allow unnecessary difficulties. It is the opponent's job to pose us problems, not our own. In the game, from this moment on, it is White who has problems!

19...♘xc2 20 ♖eb1! *(D)*

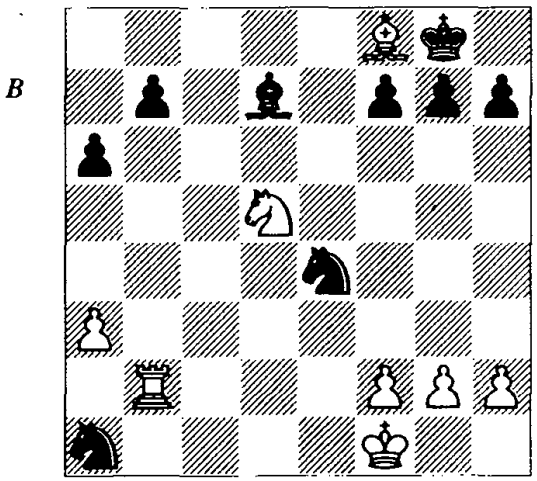
White finds a way to complicate his opponent's task. If 20 ♕xe4 ♘xe1 21 ♖xe1 ♖xf8 Black has a significant advantage.



20...♘xa1

The only move.

21 ♖xb2 ♖c1+ 22 ♕f1 ♖xf1+ 23 ♔xf1 *(D)*



23...♔xf8

It is possible that time-trouble was becoming a factor, and Black here misses his best chance. It looks stronger to play 23...♗e6!? 24 ♖xb7 ♗xd5 25 ♖b8 f6 26 f3 ♘g5, when White faces a difficult defence. The difference is that White's bishop cannot attack the a6-pawn, whereas the knight can. Now the game moves towards a peaceful conclusion.

24 ♖xb7 ♗b5+ 25 ♔g1 g6 26 ♖b8+ ♔g7 27 ♘c7 ♘c2 28 ♘xb5 axb5 29 ♖xb5 ♘xa3 30 ♖b4 ♘d6 31 g3 ♘ac4 32 f4 h5 33 ♔f2 ♔f6 34 ♖b8 ♔f5 35 ♔f3 ♘d2+ 36 ♔g2 ♔e4 37 ♖d8 ½-½

In the following game, the play becomes interesting from the very start.

A. Kuznetsov – Spassky

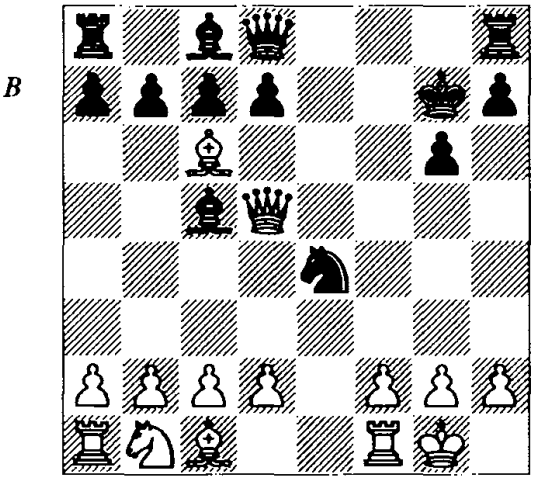
Kislovodsk 1960

1 e4 e5 2 ♘f3 ♘c6 3 ♗b5 ♘f6 4 0-0 ♗c5 5 ♘xe5 ♘xe4 6 ♘xf7?!

White chooses a dubious variation. Correct here is 6 ♕e2 ♘xe5 7 ♕xe4 ♕e7 8 ♘c3 ♘g6 with an approximately equal position, as seen in the games L.Dominguez-Mitkov, Erevan Wcht 2001 and Wedberg-Piket, Leon Echt 2001.

6...♔xf7 7 ♕h5+ g6 8 ♕d5+ ♔g7 9 ♗xc6? *(D)*

And this is simply bad. He had to play 9 ♕xe4 and then after 9...d5 10 ♕a4 ♘d4 11 c3 ♘xb5 12 ♕xb5 ♗d6 we reach a situation reminiscent of a favourable (for Black) line of the Marshall Attack.



Now Spassky obtains a large advantage with a couple of simple moves.

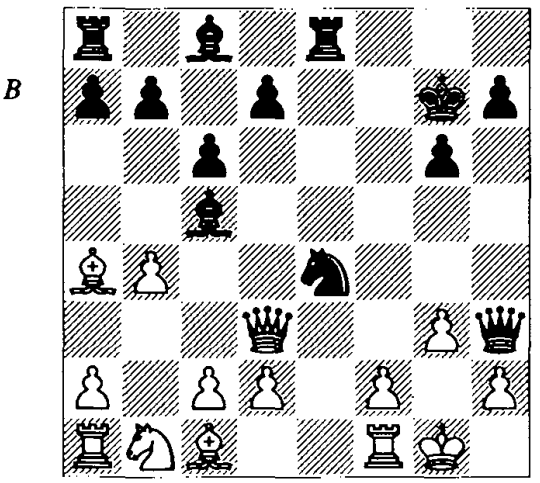
9...♖e8! 10 ♗a4 c6 11 ♕d3 ♕h4

But having done so, he promptly relaxes and misses a chance to turn it into a decisive plus by 11...♗xf2+! 12 ♖xf2 (if 12 ♔h1, then 12...♕g5! and on the forced 13 g3 there follows 13...d5 with a superb position) 12...♕b6 13 ♕e3 ♘xf2, winning.

12 g3 ♕h3?!

After the first inaccuracy there follows the second stage of our formula, namely a more serious error. This has to be the result of insufficient concentration. 12...♕f6! 13 ♔g2 d5 is correct, with a large, possibly decisive, advantage. Now White gets the chance to complicate the game.

13 b4 *(D)*



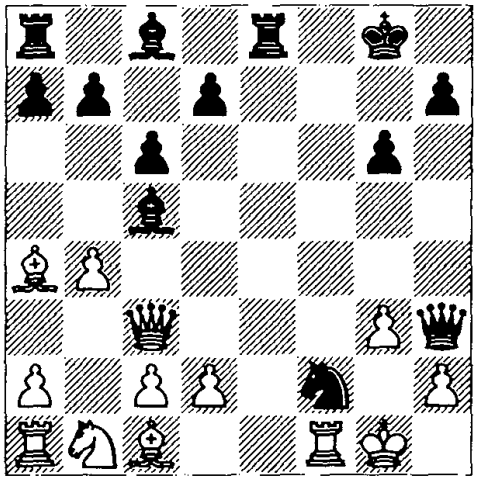
13...♘xf2?

This is now a big mistake – exactly what our 'scheme' predicted! Black fails to calculate

the variations properly in a sharp position. His large development advantage should still play its role, and therefore the simple continuation 13...♗b6 14 ♗b2+ ♔g8 15 ♗d4 d5 would have retained a clear advantage.

14 ♕c3+ ♔g8 *(D)*

W

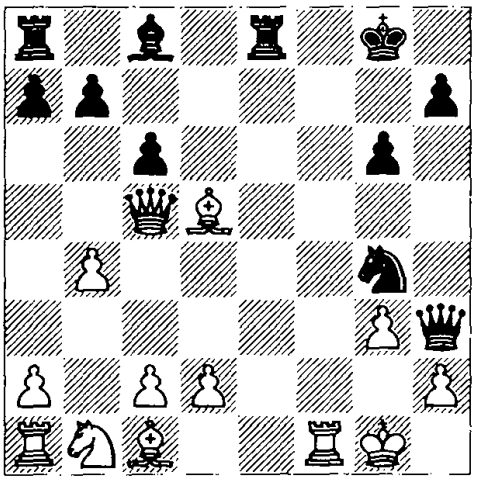


15 ♕xc5?

But now White comes to his opponent's rescue, by himself failing to cope with the problems of calculation. If he had found the variation 15 bxc5! ♘g4 16 ♗b3+ d5 17 cxd6+ ♗e6 18 ♖f2 ♗d5 (what else?) 19 ♗xd5+ cxd5 20 d3 ♘xf2 21 ♗b2 it turns out that Black has no good defence; e.g., 21...d4 (also after 21...♕h6 22 ♕h8+ ♔f7 23 ♕f6+ ♔g8 24 ♕xf2 White has a significant advantage) 22 ♕c4+ ♔f8 23 ♘d2 ♖e2 24 ♕xd4 with a large, if not decisive, advantage for White. Now everything turns round again. In this game, the assessments change quickly!

15...♘g4 16 ♗b3+ d5 17 ♗xd5+ *(D)*

B



17...♗e6!

One imagines that White must have missed this move or the next.

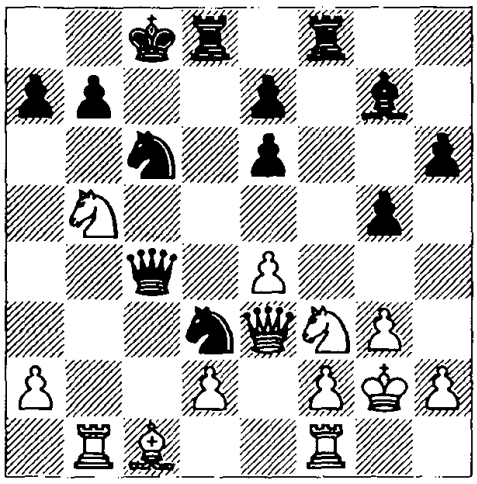
18 ♖f8+ ♔g7! 19 ♗b2+

Also hopeless is 19 ♖xe8 ♕xh2+ 20 ♔f1 ♖xe8.

19...♔h6 20 ♖xe8 ♖xe8 21 ♗f3 ♕xh2+ 22 ♔f1 ♕xg3 23 ♗xg4 ♗c4+ 0-1

The following example, by contrast, demonstrates faultless calculation in the realization of an advantage.

B



Polugaevsky – Tal
Interzonal, Riga 1979

Tal played this game, and indeed the whole tournament, very strongly. In discussing this position, he writes something which I like very much, and which exactly tallies with the theme we are discussing: "Here 19...a6 was by no means bad, but Black instead calculated a clear variation." The rest of the game runs along forcing lines. *Forcing play is the ideal for the side which is seeking to realize a significant advantage*, since it does not give the weaker side any choice and so guarantees the stronger side the maximum effectiveness and reliability in realizing his advantage. Everything depends only on the quality of his calculations.

19...g4! 20 ♘h4 ♘xf2! 21 ♘g6

Capturing loses immediately: 21 ♖xf2 ♖xf2+ 22 ♔xf2 ♖f8+.

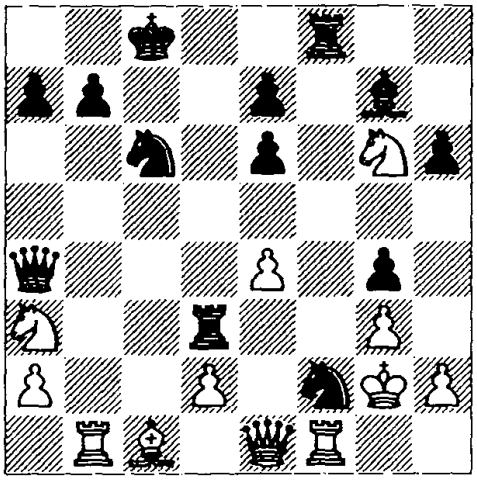
Now a thematic manoeuvre follows:

21...♖d3! 22 ♘a3

After 22 ♕e1 Black intended 22...♖df3! 23 ♘xf8 ♘d3 24 ♕d1 ♖xf1 (24...♕xe4 is also very strong) 25 ♕xf1 ♕xe4+ 26 ♔g1 ♗d4+ 27 ♘xd4 ♘xd4, winning.

22...♕a4! 23 ♕e1 *(D)*

B

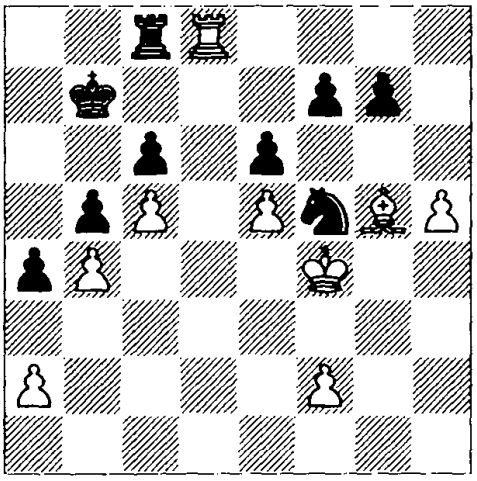


The finish follows a familiar scenario:

23...♖df3! 24 ♘xf8 ♘d3 25 ♕d1 ♕xe4 26 ♖xf3 gxf3+ 27 ♔f1 ♕f5 28 ♔g1 ♗d4+ 0-1

The following game also demonstrates magnificent calculation:

W



Kramnik – Bareev
Wijk aan Zee 2003

White undoubtedly has a significant advantage, but it is also difficult to break down his opponent's resistance. Kramnik demonstrates a splendid forcing solution to the problem.

43 ♖d7+!

43 ♖d3 ♔c7! shows why the preliminary check is necessary.

43...♖c7 44 ♖d3!

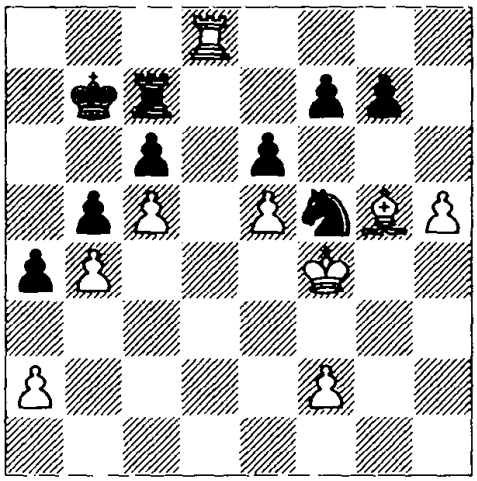
Black is in zugzwang!

44...♔c8

In the event of 44...♖c8 White can strengthen his position decisively with 45 ♗d8!.

45 ♖d8+ ♔b7 *(D)*

W

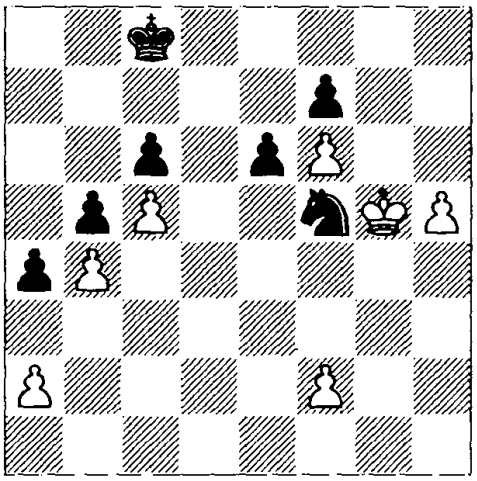


Now the preparations are complete for the decisive blow:

46 ♗f6!! g6

46...♖c8 loses immediately: 47 ♖xc8 ♔xc8 48 ♗xg7!. The main variation begins after the moves 46...gxf6 47 exf6 ♖c8 (White wins easily after 47...♘h4 48 ♔g4! ♘f5 49 ♔g5 and then h6) 48 ♖xc8 ♔xc8 49 ♔g5 *(D)* and now there are two candidate moves:

B



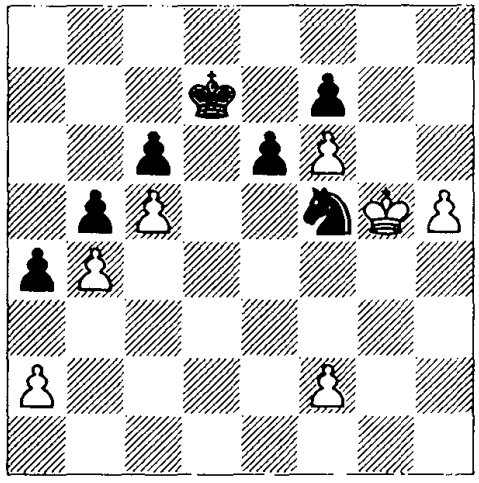
a) 49...♘d4 50 h6 ♘f3+ 51 ♔h5 ♘e5 52 h7 ♘g6 53 ♔h6 ♔d7 54 ♔g7 e5 (54...♔e8 55 f4

a3 56 h8♕+ ♘xh8 57 ♔xh8 +–) 55 h8♕! (but not 55 ♔xf7? ♘h8+ 56 ♔g7 ♔e6 57 f3 [57 a3 e4] 57...a3 58 ♔xh8 ♔f7 59 f4 e4 60 f5 ♔f8 61 f7 e3 62 f6 e2 stalemate) 55...♘xh8 56 ♔xh8 ♔e6 57 ♔g7 and Black is in zugzwang and loses: 57...e4 (57...a3 58 f3 – zugzwang) 58 a3 (zugzwang).

b) After 49...♔d7 50 h6 ♘xh6 51 ♔xh6 e5 there follows 52 ♔h7! and the rest is a familiar picture: 52...e4 (52...♔e6 53 ♔g7 a3 54 f3 – zugzwang) 53 ♔g7 ♔e6 54 a3 (zugzwang).

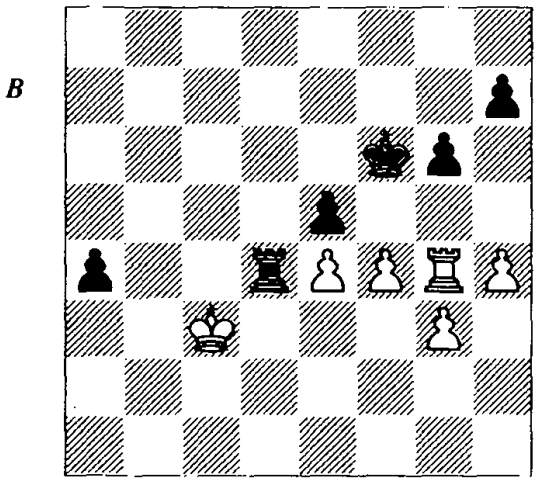
47 hxg6 fxg6 48 ♔g5 1-0

After seeing this, the attentive reader will no doubt be asking whether White needed to calculate all of this. Couldn't he have won much more simply with 43 ♖xc8 ♔xc8 44 ♗f6? The answer can only increase our respect for the World Champion's calculating abilities. It turns out that after 44...gxf6 45 exf6 ♔d7 46 ♔g5 *(D)* Black has a familiar resource, but one that is nonetheless hard to foresee:



After 46...♘d4! White must be careful. 47 f4? loses to 47...♘f3+ 48 ♔h6 ♔e8 49 ♔g7 ♘h4 50 a3 ♘f5+ 51 ♔g8 ♘g3! 52 h6 ♘h5, but he can save the game by 47 ♔g4 ♘f5 48 ♔g5 ♘d4 49 ♔g4 ♘f5 50 ♔g5 ♘d4! or 47 h6 ♘f3+ 48 ♔h5 ♘e5 49 h7 ♘g6 50 ♔g5! (not 50 ♔h6? e5 51 ♔g7 ♔e6 52 f3 a3 – zugwang) 50...♔e8 (50...e5? 51 ♔h6 ♔e6 52 ♔g7 – now Black is in zugwang) 51 ♔h6 ♔f8; e.g., 52 a3 e5 53 f3 ♘h8 54 ♔g5 ♔e8 55 ♔h6 ♔f8, etc.

The following fragment is another exemplary case of realizing an advantage:

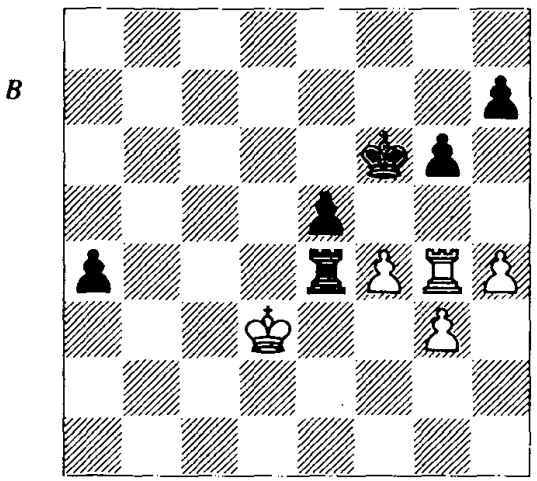


Flohr – Geller
USSR Ch, Moscow 1949

After a long battle, Black has achieved a very favourable ending. It looks as though it should be winning for him, but when one starts looking for a clear win, it is not so easy: 42...a3 43 fxe5+ ♔e6 (43...♔xe5?? 44 ♖g5+ ♔xe4 45 ♖g4+) 44 ♔b3 ♖a4 45 ♔a2 ♔xe5 46 ♖g5+! ♔d4 47 h5 ♖a6 48 e5 ♔e4 49 hxg6 hxg6 50 e6! ♖xe6 51 ♔xa3 and draws. A better chance is 42...♔e6!? 43 fxe5 ♖d7!, but in this case, Black must accurately assess the consequences of 44 ♔b4 ♖a7 45 ♔a3 ♔xe5 46 ♖f4, which is not easy over the board. Given the advantage which Black has, he can legitimately expect that a clearer and more convincing solution should exist. Such a thought produced the following variation:

42...♖xe4! 43 ♔d3 *(D)*

The ending is winning for Black after 43 fxe5+ ♔xe5 44 ♖g5+ ♔f6 45 ♔d3 h6!.



But now comes the point of Black's idea:

43...♔g7!!

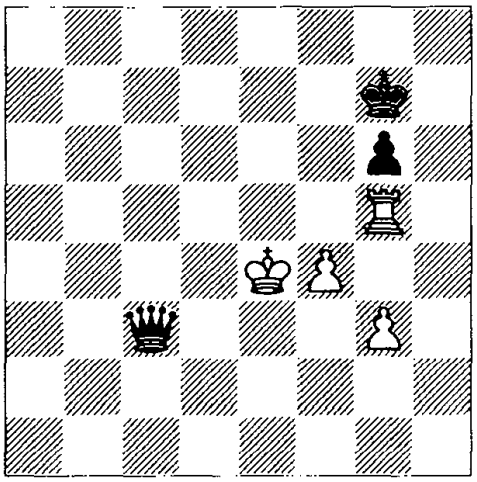
Other tries are weaker; e.g., 43...a3? 44 fxe5+ ♖xe5 45 ♖a4 ♖f5 46 ♔e3 leads to a draw. 43...♖d4+?! 44 ♔c3 ♔e6 45 h5 gives White counterchances, and even if they prove insufficient, Black should avoid them if possible.

44 h5

44 ♔xe4 a3 transposes, while after 44 ♖g5 a3 45 ♔c2 exf4 Black wins without difficulty.

44...a3 45 ♔xe4 a2 46 hxg6 hxg6 47 ♖g5 a1♕ 48 ♖xe5 ♕c3 49 ♖g5 *(D)*

B



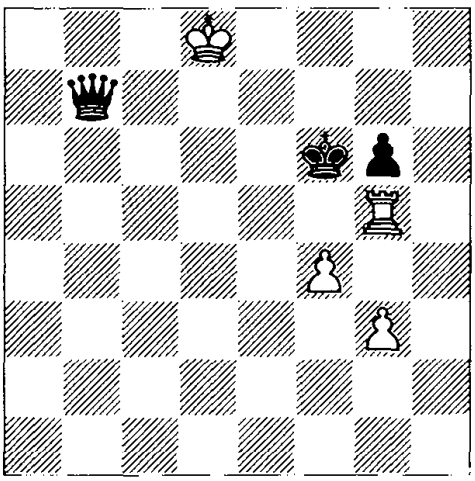
Even this position is not so easily winning. The standard method is by using zugzwang, which Geller demonstrates convincingly.

49...♔f6 50 ♔d5 ♕d3+ 51 ♔c5 ♔f7

Zugzwang.

52 ♔c6 ♕d4 53 ♔b5 ♕c3 54 ♔b6 ♕c4 55 ♔b7 ♕e6 56 ♔c7 ♔f6 57 ♔b7 ♕d6 58 ♔c8 ♕c6+ 59 ♔d8 ♕b7 *(D)*

W



The aim has been achieved – the king has been driven away and has little mobility. The rook must move, leaving the g3-pawn undefended, and it falls immediately.

60 ♖e5 ♕b6+! 61 ♔c8

After 61 ♔d7 ♕d4+ 62 ♔c6 ♕c3+ White loses a pawn.

61...♔f7 0-1

White is in zugzwang. After 62 ♖g5 ♔e7 the white king is driven to the edge of the board and mated.

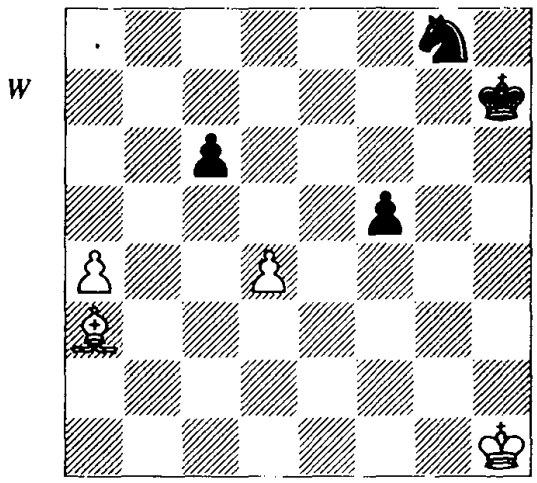
It is clear that the point of Black's highly effective 43rd move was to prevent the e5-pawn from being taken with check, the drawbacks of which Black realized when calculating one of the candidate moves. We shall discuss such matters in more detail in the next section of the book. The game just examined therefore represents a bridge between the previous theme and the next...

Resulting Moves

We have drawn attention to the interesting fact that in the previous example, 43...♔g7!! came about as a reaction to one or both of the candidate moves calculated beforehand. This means that the logic which led to the move did not come from the general overview of the position and the resulting conclusions about its key features, as we are used to seeing, but *came from the consequences of calculating concrete variations*. This difference is very interesting and worthy of closer attention.

We have already seen in Flohr-Geller that sometimes a player's attention is drawn to a particular move only after he has calculated one or more candidate moves, and has seen the results. The best way to look at this further is by means of concrete examples.

Solving studies is difficult from one standpoint, because they have only one solution, and therefore require the highest degree of accuracy in calculation. On the other hand, their strategic and positional content is usually fairly simple and easy to understand. In the following diagram, this is clear: White's aim is to promote the a-pawn. Black can fight this only with his



White to play and win
A. Troitsky
Izvestia, 1924

knight. Note that the position is so simple from a logical standpoint that there is only one candidate move: 1 a5. Other moves, such as moving the white king, seem to make little sense. It is also not clear where the bishop could usefully move to. Its moves will depend on where the black knight goes. After 1 a5, events will develop as follows: 1...♘f6 2 a6 ♘d5 3 a7 (3 ♗d6 ♘b6; 3 ♗c5 ♘c7) 3...♘c7 4 ♗d6 ♘a8 5 ♔g2 ♔g6 6 ♔f3 ♔f6 7 ♔f4 ♔e6 8 ♗b4 ♘c7 drawing without difficulty. Looking closely at these variations, however, one notices that once the black knight gets to d5, it controls b6 and c7, and cannot be prevented from getting to the a8-square. Once one realizes this, the conclusion is obvious – one should try...

1 d5!

It turns out that everything fits together for White.

1...cxd5 2 a5 ♘f6 3 a6 ♘e8

On 3...♘d7 there follows 4 ♗c5.

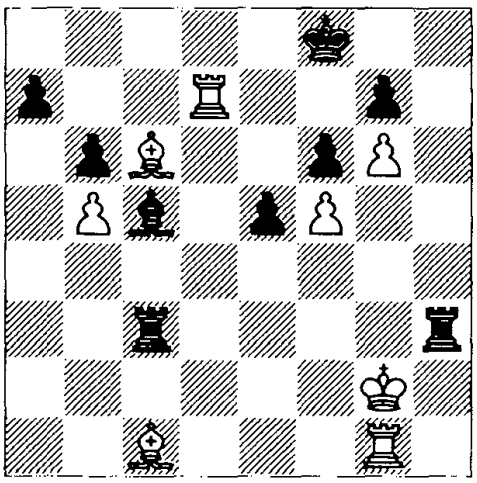
4 ♗d6!

and the pawn cannot be stopped.

So what conclusions can we draw already? Without jumping ahead, it is clear that the conclusions which led us to find 1 d5 in the study, just like the example of Flohr-Geller, came not from a logical appraisal of the position, but from calculating concrete variations following on from the candidate moves.

However, there is one important nuance here. The sceptic may well say "OK, as far as Flohr-Geller is concerned, we can accept the theory, but in the case of the study, surely one can easily find the key move by pure logic? Thus, Black needs to stop the a-pawn with his knight; the knight can approach only via f6; once it reaches f6, it is natural that it should proceed via the central, multifunctional d5-square; therefore, let us deprive it of that possibility by 1 d5." This is undoubtedly a good and important question. My answer is as follows: isn't it really the case that the discussion of the logic behind the manoeuvre ...♘f6-d5 is really just a verbal description of the variations arising after 1 a5? The fact that this variation is fairly simple means that we can summarise its results fairly easily in words, but this does not change the essential point. If you wish, we can express our rule slightly differently: "in some very simple positions, the key move can be found either by logic, or as a result of the analysis of other candidate moves."

We shall now look at other aspects of this phenomenon.



Gufeld – Klovans
USSR Team Ch, Moscow 1966

This position arose by force from the adjourned position. Needless to say, it was the subject of detailed adjournment analysis by both players. Looking at the various candidate moves gives the following results:

a) 43 ♖f7+? ♔g8 44 ♖d1? ♖cg3+ 45 ♔f1 ♖g1+ 46 ♔e2 ♖h2+ and Black wins.

b) 43 ♖gd1? ♖cg3+ 44 ♔f1 ♖g1+ 45 ♔e2 ♖h2+ 46 ♔f3 ♖h3+ 47 ♔e4 ♖h4+ 48 ♔f3 ♖h3+ 49 ♔e2 ♖h2+ drawing.

c) The best line looks to be 43 ♖d8+ ♔e7 44 ♖e8+ ♔d6 45 ♖d1+ ♗d4 46 ♔f1 ♖h5 in which White's material advantage should eventually tell, although not without difficulties.

But the game continuation was decisively influenced by the fact that the game was played in a team competition, and Gufeld was lucky enough to have Geller playing on the same team. The latter soon found a much more effective way of dealing with the irksome pair of black rooks.

43 ♗f4!!

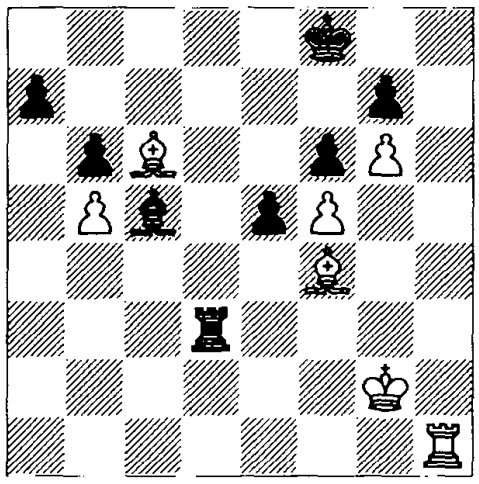
One can easily imagine the effect this must have had on Black, whose entire adjournment analysis had overlooked this possibility.

43...♖hd3

The variations 43...exf4 44 ♖d8+ ♔e7 45 ♖e8+ ♔d6 46 ♖d1+ ♖hd3 47 ♖xd3+ ♖xd3 48 ♖d8+ and 43...♗xg1 44 ♖f7+ ♔g8 45 ♖e7 ♗c5 46 ♖e8+ ♗f8 47 ♗d5+ reveal the strength of White's last move and explain the essence of his idea.

44 ♖xd3 ♖xd3 45 ♖h1 *(D)*

B



45...♔e7

Whether in the form of shock or time-trouble, White's super-move has its effect. 45...♗d4 also loses quickly, to 46 ♖h8+ ♔e7 47 ♗h6!, but Black could resist more stubbornly after 45...♔g8 46 ♗c1, although even here White can gradually seize the a2-g8 diagonal with his bishop and drive away the black king.

46 ♖h8! 1-0

46...exf4 47 ♖e8+ ♔d6 48 ♖d8+.

This little gem is not spoiled by the fact that White would probably still have been winning after 43 ♖d8+. Firstly, in that line, Black would have retained both rooks and been able to put up significant resistance, whereas after the move in the game, one pair of rooks is exchanged and Black is driven into immediate passivity. And secondly of course, there is also the aesthetic element! One should also not forget about the psychological effect of White's choice.

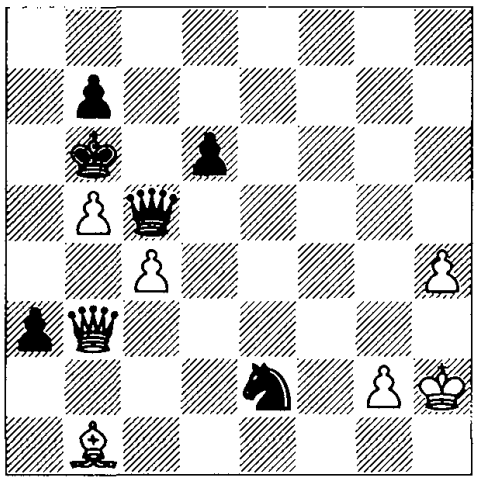
And now that we have looked at this phenomenon from various angles, let us describe its mechanism and try to suggest a name for it. We are looking at a situation where a move comes to light, not as a logical candidate move, but as the result of the candidate moves themselves. Often the logic underlying the move is not clear from the initial position, but it appears like the genie from the lamp, and proves to be the best option. We have already seen several such examples, and shall see more later. We have already seen that *such moves appear as a result of the process of calculation of other moves*. Let us remember too that 43 ♗f4!! in the above example not only solved the problem of the powerful pair of black rooks, which caused the problems in variations 'a' and 'b', but also effectively broke Black's defences along the d-file, which underlay the problems in variation 'c'. In other words, and this seems to me to be especially important, the miracle-move brought White a decisive strengthening of his position *in several lines*.

When I wrote the book *Chess Recipes from the Grandmaster's Kitchen*, in which I first introduced the idea of resulting moves, I spent some time looking for an appropriate term for them, before finally settling for a term which reminded me of something from school mathematics and physics lessons. The term used there was *vectors*, i.e. lines which represent the actions of a force of some kind on an object of some kind.

Let us now conduct a thought experiment. Let us assume that the object is a balloon. A child hits it with his hand and the balloon moves forward. But now there is a small puff of wind. The balloon changes direction and flies not just straight ahead, but also upwards. The balloon is subject to two different forces, or vectors, both trying to determine its direction. As a result, the balloon takes a direction which is a combination of the two, and this can also be called a vector. In mathematics, this is known as the 'resultant vector'. I therefore suggest that the phenomenon we are interested in, when a move is the result of several factors coming to light when other moves are calculated, can usefully be called '*resulting moves*'. Thus, *a resulting move is the product of candidate moves, but cannot itself be considered a candidate move.* The possibility of a resulting move being concealed in the position has no effect on the order of calculation of candidate moves, which is already well known to us. *The existence of a resulting move can only come to light as a result of the calculation of the candidate moves*, and therefore only when this procedure has been completed.

In order to discuss resulting moves a little further, get into the habit of finding them, and uncover as yet unknown sides to this phenomenon, let us look at some more examples.

B



Gadjily – Nisipeanu
Dubai 2002

Black has built up a great advantage, and it only remains to cash in. It is also clear that the only candidate moves here are the checks on g1 and e5. The former was tried in the game:

43...♕g1+?! 44 ♔h3 ♕h1+ 45 ♔g4 ♕xg2+ 46 ♔h5 ♘f4+ 47 ♔h6 ♕f2 48 ♕xa3 ♕xh4+ 49 ♔g7 ♕e7+

Now White blundered badly:

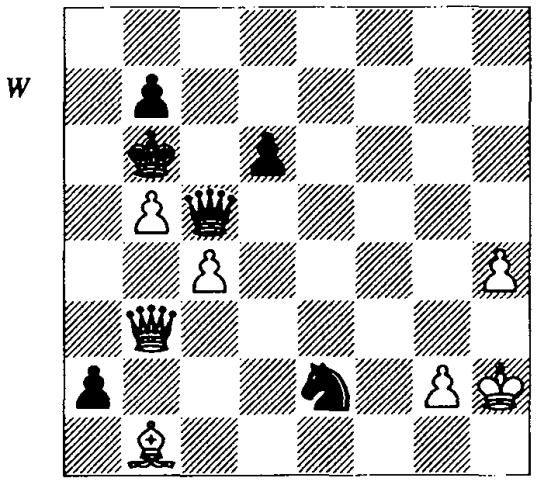
50 ♔g8??

After 50 ♔h6 there is no mate to be seen; e.g., 50...♕f6+ 51 ♔h7 ♕f7+ 52 ♔h6 ♕h5+ 53 ♔g7. Nor do I see any other clear winning plan.

50...♘h5 0-1

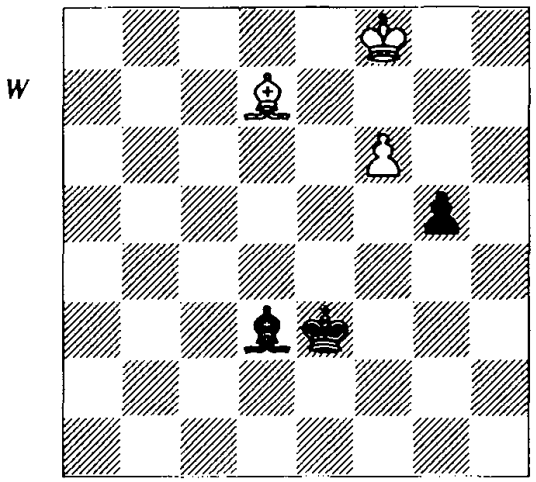
However, the questions are only just starting. Firstly: wasn't the other candidate move stronger? The answer is yes, it seems much more convincing, after 43...♕e5+!? 44 g3 ♕c3!. However, White can now seize his last chance, playing 45 c5+!? and Black has to consider three possible captures. 45...dxc5? is clearly bad due to 46 ♕e6+. After 45...♔xc5 46 ♕g8 it appears the white queen can cause trouble (in fact, 46...♕a2! is then a fairly straightforward win, as further analysis reveals) and we may wish to put this line to one side. A good choice appears to be 45...♕xc5 when after 46 ♔h3 ♘c3 Black has a winning queen ending. It is eminently possible to settle for this and declare 43...♕e5+ as sufficient, without looking for anything else. But an experienced player knows that when one's experience and intuition tells one that there ought to be something more convincing in the position, it pays to spend a little more time and energy looking for it. In the present position, as we have already said, Black has a great advantage and this suggests that it may be possible to find some extra resource. The question is what we should be thinking about. Where and how should we search, in order to have the best chance of success? The answer is to look among the variations arising from the candidate moves. If we look at these attentively, we notice that in both cases, White only manages to defend against the direct threats to his king by a hair's breadth. If we can augment the pressure by even a fraction, this will be the straw which breaks the camel's back. How can we do this? One only needs ask this question, and the answer becomes obvious: 43...a2! *(D)*.

Now it is all over quickly and without problems: 44 ♗xa2 ♕g1+ 45 ♔h3 ♕h1+ 46 ♔g4



♕xg2+ 47 ♔h5 ♘f4+ 48 ♔h6 ♕g6#; 44 ♕xa2 ♕e5+ 45 ♔h1 ♕e3.

It is clear that the time spent on finding 43...a2 (assuming that Black has some time in reserve!) is much less than he will need to realize his advantage after playing even the strongest of the original candidate moves.



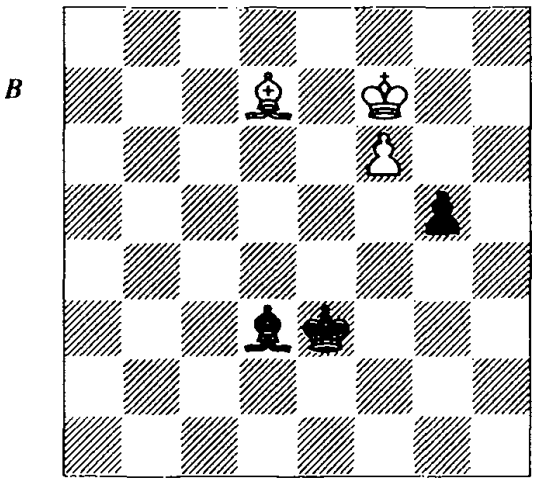
White to play and win

W. Issler

3rd Prize, *New Statesman*, 1970

The following important elements of this position are clear: the white king must move out of the way of the pawn, but after 1 ♔g7 there follows 1...♗c4 2 ♔h6 ♔f4 drawing, and 1 ♔e7 is met by 1...♗g6 2 ♗e8 g4 3 ♗xg6 g3 4 f7 g2 5 f8♕ g1♕, when the advantage is also insufficient against accurate defence. And in reply to 1 ♗e6, 1...g4 leads to a draw. We already know how to look for the solution in such situations: analyse what we have seen and draw conclusions. These are as follows: the black bishop is the problem since it can get to both critical squares. The only attempt to stop this is:

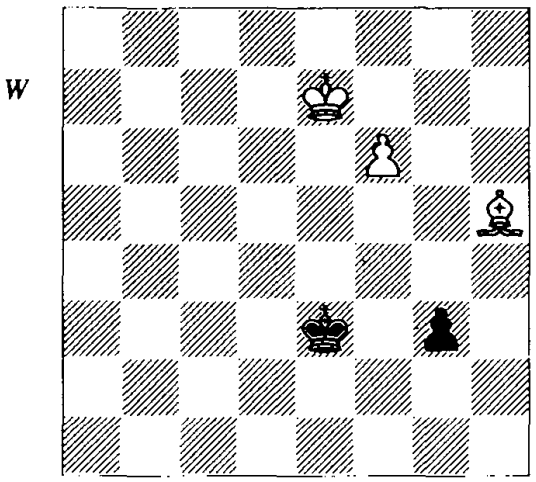
1 ♔f7!! *(D)*



1...♗e2

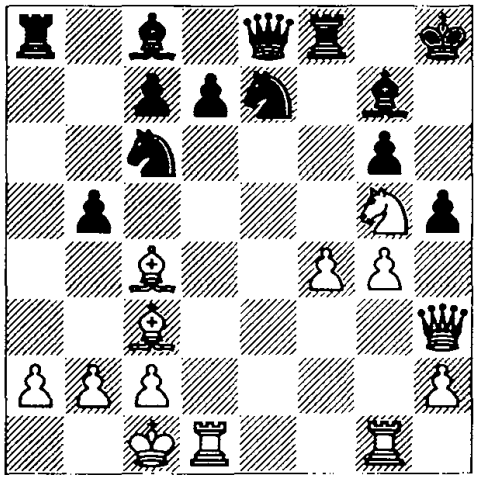
Black must move the bishop, because a king move gives White a tempo to reorganize his position: 1...♔f4 2 ♗e6! ♔e5 3 ♔g7!. After 1...g4 2 ♗xg4 ♔f4 3 ♗e6 ♔g5 White wins by force with 4 ♔e7! ♗g6 5 ♗f7 ♗d3 6 ♗e8! ♗c4 7 ♗d7. He wins in similar fashion after 1...♔d4 2 ♗e6 g4 3 ♗xg4 ♔e5 4 ♗e6 ♗e2 5 ♔g7 ♗h5 6 ♗f7 ♗f3 7 ♗b3 ♗h5 8 ♗c2. But now we see the difference from one of the variations looked at earlier:

2 ♔e7! ♗h5 3 ♗e8 g4 4 ♗xh5 g3 *(D)*



5 ♗f3! ♔xf3 6 f7 g2 7 f8♕+

Here is another fragment which features a resulting move:



Krejčik – Krobot
Vienna 1908

This position, which arose in a game played many years ago in the old and now-defunct chess cafe in Vienna, clearly favours White. There are three candidate moves. The first two of these are 18 f5 d5! 19 gxh5 ♗xf5 20 ♗xg7+ ♔xg7 21 h6+ ♔h8 22 ♕c3+ d4 23 ♖xd4 b4 with advantage to Black, and 18 gxh5 d5! 19 ♗xg7+ (19 ♕h4? ♘f5) 19...♔xg7 20 h6+ ♔h8! 21 ♕c3+ d4 22 ♖xd4 b4 with a complicated position with roughly equal chances. Both lines show the strength of ...d5. As a result of this conclusion, a resulting move appears:

18 ♖d6!!

The rest develops forcefully and convincingly.

18...cxd6

If 18...bxc4 there follows 19 gxh5 gxh5 20 ♖h6+ ♔g8 21 ♖xh5 with a quick mate.

19 gxh5 gxh5

Mate follows after 19...♗xc3 20 hxg6+ ♔g7 21 ♕h7+ ♔f6 22 ♘e4+ ♔f5 23 ♘g3+.

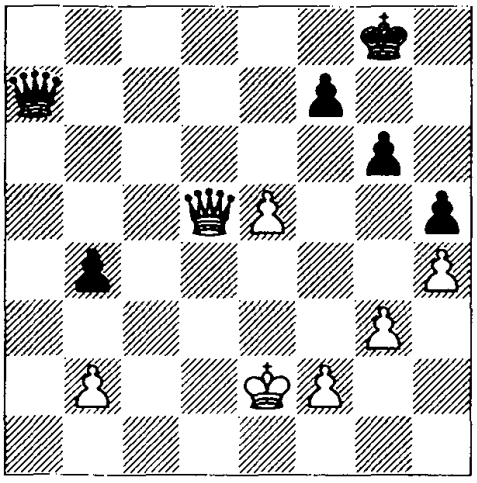
20 ♗xg7+ ♔xg7 21 ♘f7+! ♘g6 22 ♖xg6+ ♔xg6 23 f5+

23 ♕g3+ mates two moves quicker, but the text-move is also fine.

23...♔f6 24 ♕h4+ ♔xf5 25 ♕g5+ ♔e4 26 ♘xd6+ ♔d4 27 c3# (1-0)

The fact that the third candidate move, 18 ♗xg7+, also leads to a win does not detract from White's excellent achievement in the game. After 18...♔xg7 19 ♕c3+ ♔h6 20 ♘f7+ ♖xf7 (20...♔h7 21 gxh5 bxc4 22 hxg6+ ♘xg6 23 ♕h3+ +–) 21 ♗xf7 ♕f8 22 f5! White has a decisive attack, although not as quickly as the game. This is not surprising. In positions with such a large advantage as White had in this game, there are often several convincing ways to win. At the board, one only needs to find one of these.

I am not entirely sure what terminology to apply to the decisive move in the next fragment.



Smyslov – Lilienthal
USSR Ch, Leningrad 1947

White has very good winning chances, but actually winning is not simple. For example, after 45 ♕e4 there is 45...♕b6. In such positions, it is always useful to create a second weakness, and this leads one to think of:

45 e6!

In order to play this, White had to calculate the variations 45...♕e7 46 ♕d7 and 45...♕a6+ 46 ♔d2 fxe6 47 ♕d3, both of which lead to a win.

45...fxe6

And now comes the most important and interesting moment.

46 ♕e4!!

After this tremendous move, Black must lose one of his pawns, each of which is much more important than that on e6.

46...♕a6+

White also wins without great trouble after 46...♔f7 47 ♕xb4.

47 ♕d3! ♕b6

Now the pawn ending would be clearly hopeless.

48 ♕xg6+

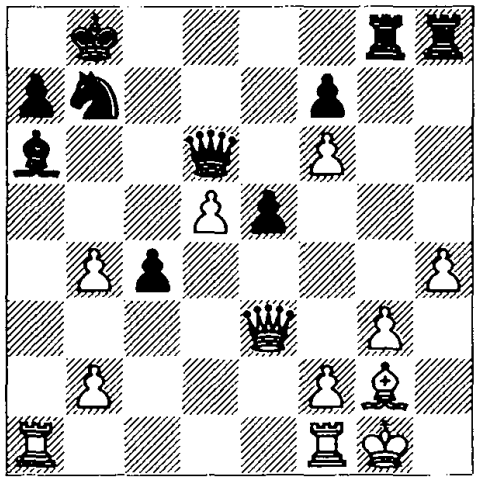
Black has no chance. It was already time to resign.

48...♔f8 49 ♕xh5 ♕d4 50 ♕f3+ ♔g7 51 b3 ♕b2+ 52 ♔f1 ♕c1+ 53 ♔g2 ♕c3 54 ♕e3 e5 55 h5 ♕c6+ 56 ♔g1 ♕c3 57 ♕g5+ ♔f7 58 ♕g6+ ♔e7 59 h6 ♕xb3 60 h7 ♕d1+ 61 ♔g2 ♕d5+ 62 f3 ♕d2+ 63 ♔h3 ♕d7+ 64 ♕g4 ♕d1 65 ♕g7+ 1-0

How should one classify White's 46th move? Is it a candidate move or a resulting move? I tend to think the latter, on the basis that it is undoubtedly based on the short but important variations which can follow on Black's other 45th moves.

In the following fragment, all of the variations were pointed out by the winner:

W



Kramnik – Ivanchuk
Novgorod 1996

The obvious candidate move is 25 b5, but after 25...♗xb5 26 ♕xa7+ ♔c7 there arises an unclear position in which Black's chances appear fully adequate. Looking at the position more closely, it is easy to see that White suffers from a lack of open lines for his rooks, especially on the queenside. For this reason, Kramnik played...

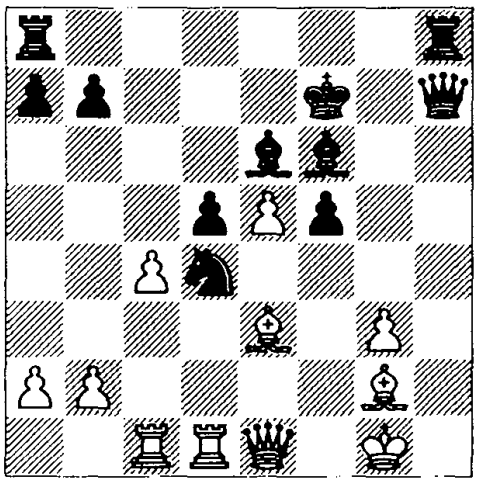
25 b3!

This is a typical resulting move. The variations 25...c3 26 ♖fc1, 25...cxb3 26 b5 ♗xb5 27 ♕xa7+ ♔c7 28 ♖fc1+ and 25...♖g4 26 b5 ♗xb5 27 ♕xa7+ ♔c7 28 ♖fc1 (28...♕c5 29 d6+) are so bad for Black that he resigned immediately.

1-0

In the next example, a resulting move comes about from the need to avoid an unlikely-looking defensive move by the opponent:

B



Miezis – Smirin
New York Open 1998

Without doubt, Black's primary attention here is focused on the white king, with all other factors being secondary. For this reason, only moves which are directed against the king itself need be examined. These moves are:

a) 24...♗xe5 leads after 25 ♗xd4 ♕h2+ 26 ♔f1 ♗xg3 27 ♕b4! to a position in which the initiative passes to White.

b) It looks as though 24...♕h2+ is a more important continuation, after which events develop as follows (I show only the main line, which even by itself is confusing and has many ramifications): 25 ♔f1 f4 26 ♗g1 ♕h5! 27 exf6 f3 28 ♖xd4!? fxg2+ 29 ♔f2 and the position is far from clear, but chances look about equal. But now look again at the initial position: can one really believe that it only offers Black equal chances? Surely not, and this makes us return to the candidate moves again and look for

something else. Without going too far into the position, I would merely draw your attention to the importance in the last variation of the bishop on g1 in fending off the black attack. It simply kills all of Black's chances along the h-file, and this means that we must look for a way of preventing its transfer to g1. The answer turns out to be simple: change the move-order. This is what happened in the game.

24...f4!!

White is immediately in trouble.

25 ♗xd4 *(D)*

No adequate defence is to be found after other moves either; e.g.:

a) 25 ♗xf4 ♘f3+ 26 ♗xf3 ♕h2+ 27 ♔f1 ♗h3+.

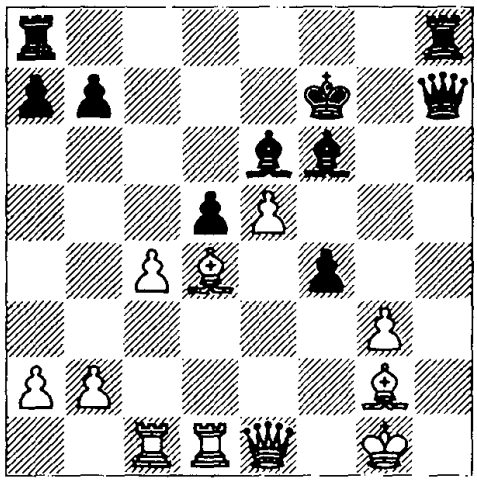
b) 25 exf6 ♘f3+ 26 ♗xf3 ♕h2+ 27 ♔f1 ♗h3+.

c) 25 gxf4 ♕h2+ 26 ♔f1 ♖ag8.

d) 25 ♖xd4 ♕h2+ 26 ♔f2 (26 ♔f1 f3 –+) 26...♗h3 27 ♕g1 fxe3+.

e) 25 ♔f1 fxe3 26 ♖xd4 ♗xe5.

B



25...f3!

This wins by force, but 25...♕h2+ 26 ♔f2 fxg3+ is also winning.

26 exf6 fxg2

26...♕h2+ 27 ♔f2 ♕xg2+ 28 ♔e3 ♖ae8 29 ♗e5 ♖h5 is also good.

27 ♔xg2 ♖ae8!

The decisive move. The last piece joins in the attack and the defence is overwhelmed.

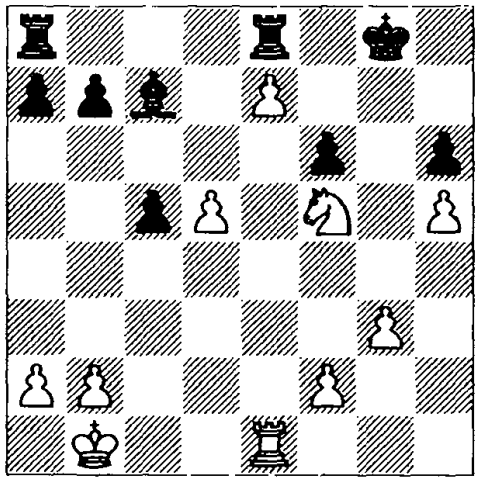
28 ♗e5

The queen cannot move: 28 ♕a5 ♕e4+ or 28 ♕f2 ♕h3+ 29 ♔f3 ♗g4+, mating in both cases.

28...♗g4! 29 ♕e3 ♕h2+ 30 ♔f1 ♕h1+ 0-1

Starting with the next example, we see some other characteristics and aspects of resulting moves.

W



Karpov – Hübner
Tilburg 1982

Notwithstanding his significant material deficit, White has an indisputable advantage, but for its successful realization, it is useful to take the h6-pawn. As a result of these considerations and the calculation of the resulting variations, Karpov found a wonderful resulting move.

30 ♔c2!

This results from the variation 30 ♘xh6+ ♔h7 31 ♘f5 ♖ad8! and Black seizes the initiative. Now this tactical resource is removed and White is able to conduct the game to victory without any problem. Clearly, the king move results from the variation beginning with 30 ♘xh6+, and should be regarded as a resulting move. What is more interesting still, however, is the fact that this move can also be considered prophylactic. I would go further. The truth is that *prophylactic moves are often also resulting moves*! This happens because before playing a prophylactic move, the player must examine the position deeply and often calculate variations, in order to understand exactly what his opponent intends. In other words, he is doing everything that he would do before choosing a resulting move. 1 d5! in the Troitsky study examined earlier could also very well be described

as a prophylactic move, as could 18 ♖d6!! in Krejčik-Krobot. However, this does not mean that resulting moves must always be prophylactic moves. There are also different types of resulting move, as we shall see shortly.

The present game continued:

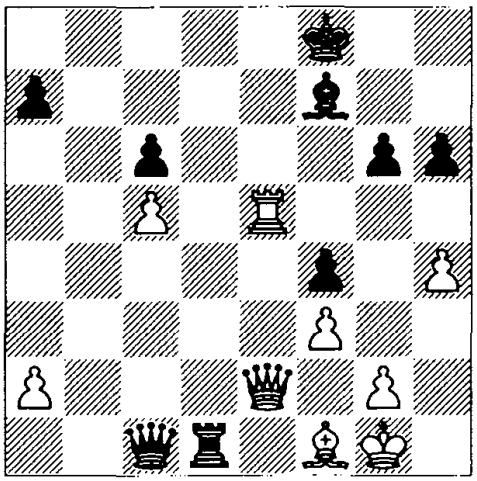
30...b5

Black also has a hopeless position after 30...♔h7 31 d6 ♗xd6 32 ♘xd6 ♖ab8 33 ♔c3 b5 34 b4.

31 ♘xh6+ ♔h7 32 ♘f5 ♖g8 33 d6 ♗a5 34 ♖e6 ♖g5 35 ♖xf6 ♖xh5 36 d7 ♖h2 37 ♘e3 1-0

And now let us look at another example, already well known to readers of my book *Lessons in Chess Strategy*. It involves the technique of zugzwang:

B



Löwenthal – Morphy
Match (game 3), London 1858

It is difficult to find a move for White. In such positions, zugzwang is always in the air, and the task of the player is to find the exact way to achieve it. I am not the first to discuss with my readers the technique of finfinding zugzwangs. Earlier, whole books and articles have been devoted to the subject, but they have usually attributed it either to the talent of the player, or to a lucky inspiration. Here, however, I shall suggest a methodology for finding zugzwangs and will explain its mechanism. In this way, I hope to turn this 'secret of the great' into a weapon any decent player can use. To those who have read my book *Lessons in Chess Strategy*, the following discussions will be well-known, but here they will see them illustrated with new examples.

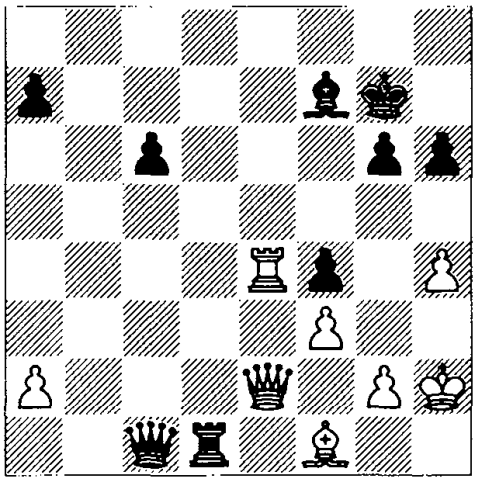
Thus: the start of the search (except if one starts by looking for typical motifs) should always begin by checking the usual candidate moves. Here this means 34...♗c4?, which leads to disaster after 35 ♖e8+ ♔g7 36 ♕e5+ ♔f7 37 ♕e7#. From this simple line we can see the importance of disrupting the coordination of the white major pieces, which can be exploited only by checks. In other words, Black needs to move his king out of the enemy fire. Morphy did precisely this:

34...♔g7! 35 ♖e4

Advancing the white pawn will be answered in the same way. After 35 h5 Black wins by 35...♔f6! 36 hxg6 ♗c4. This means that White is already in zugzwang and must part with a pawn.

35...♕xc5+ 36 ♔h2 ♕c1! *(D)*

W



37 ♔g1

Unfortunately, the attempt by White to play actively does not lead to perpetual check: 37 ♖e7 ♖xf1 38 ♕e5+ ♔f8 39 ♖xf7+ ♔xf7 40 ♕c7+ ♔e6.

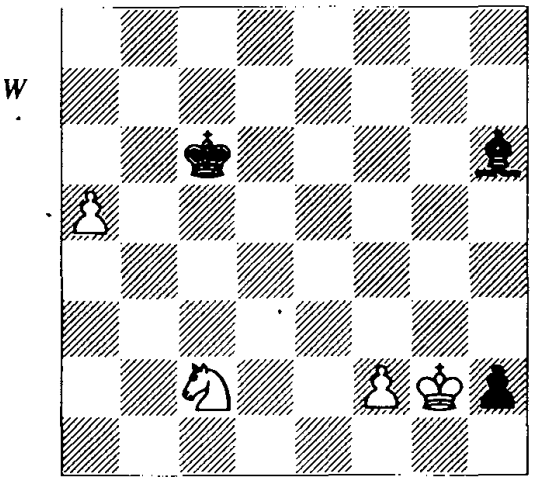
37...♖d2 38 ♕a6 ♖xa2 39 ♕d3 ♖d2 40 ♕a6 ♖d1 41 g3

White fights heroically, but has to pay too high a price to free his pieces. Morphy took the pawn:

41...fxg3

He went on to win, albeit not without some inaccuracies.

In order to solve the next study, different methods of calculation are required.



White to play and win
R. Réti
Hastings and St Leonards Post, 1922

It is clear that White must start with a knight check. Only in that way can he defend his own pawn and take Black's. The correct choice is:

1 ♘d4+!

1 ♘b4+? only leads to a draw after 1...♔b5 2 a6 ♔b6 3 ♔xh2 ♗d2.

In order not to lose his pawn immediately, Black must now attack the knight, and 1...♔d5 loses immediately to 2 a6.

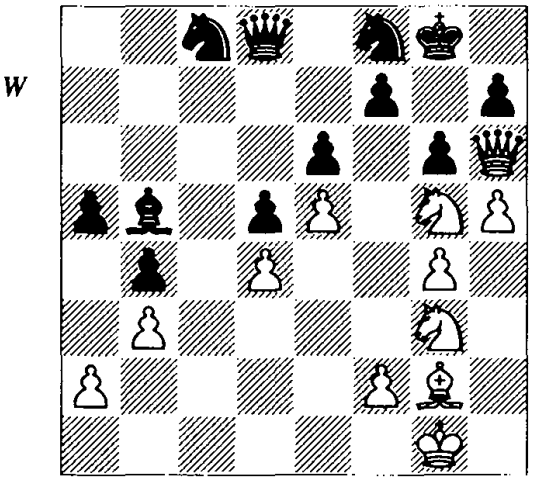
1...♔c5

The first stage is completed. But now what? Firstly, we can identify one useful piece of information: if it were Black's turn to move, he could not take the knight, because then the a-pawn queens. Only a draw results from waiting moves with the pawn: 2 f3 ♗e3 and 2 f4 ♗xf4 3 ♘e6+ ♔b5, while 2 ♘f5 ♗f4 is also a draw. A more complicated and important variation is 2 ♘b3+ ♔b5 3 ♔xh2 but after 3...♗f4+ 4 ♔h3 ♗b8! 5 ♔g4 ♔b4 6 a6 ♔xb3 7 f4 ♔c4 8 f5 ♔b5 9 f6 ♔xa6 Black manages to save himself by a tempo. So where should we seek the idea which will bring success? Only in the variations just examined (which is the essence of the resulting move approach). Looking at these again, we see that moves of the white pawn give Black's bishop its *only* free square! This is because all other squares allow a fork by the knight from d4. This in turn means that the knight should not move either. Taking the h2-pawn gives Black a vital tempo to transfer his bishop to b8, and so we are left with the only move which does not contain any of these drawbacks:

2 ♔h1!!

And this is it: Black is in zugzwang and must lose his bishop while the white f-pawn survives. A very instructive and nice study.

The last two examples show that looking for zugzwang in an original position fits in perfectly with the method of searching for resulting moves. And these two examples will suffice, because there is also another important truth which we need to consider in relation to this theme. In order to convince not only the favourably inclined, but also the more sceptical readers, as well as providing pleasure to both groups, I present a selection of examples 'from the greats'. The first game is famous mainly for the decision which White took in the diagram position:



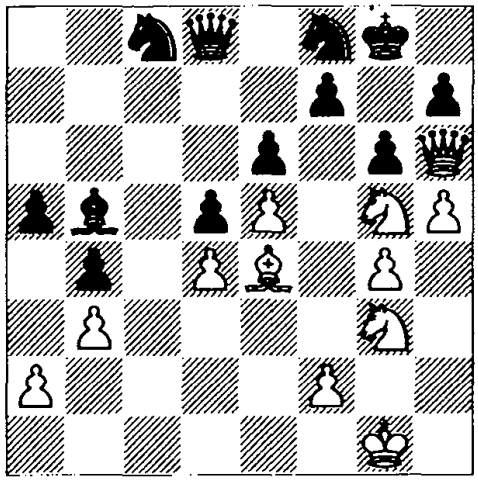
Fischer – Panno
Buenos Aires 1970

Is it possible to convert White's pressure into something more concrete? The candidate moves do not give a clear answer. The g3-knight cannot get to f6 directly: 28 ♘3e4?? dxe4; the more realistic attempt to break through with 28 ♘xh7!? ♘xh7 29 hxg6 fxg6 30 ♕xg6+ ♔h8 31 ♕xe6 is not fully clear after 31...♕d7. 28 hxg6 fxg6 29 ♘xh7 leads to the same thing. If one cannot find

anything clearer, then this is the line one must play. But calculating the two previous variations (even if the first looks ridiculous, it can occasionally be interesting to consider such moves!) reveals a move which decisively significantly strengthens both lines:

28 ♗e4!! *(D)*

B



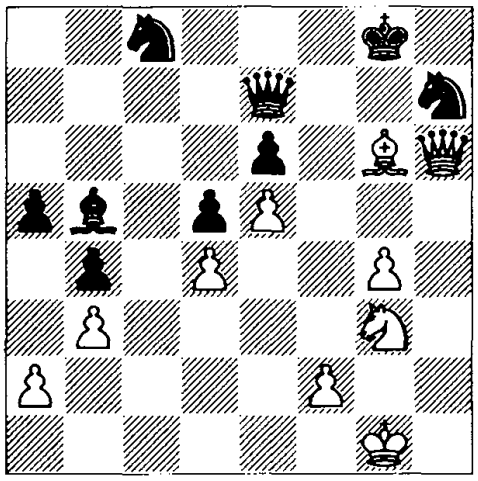
I repeat: when you see such a move, and then appreciate its strength, it is always interesting to understand how the player arrived at the decision.

28...♕e7

Clearly the bishop cannot be taken, while after 28...♗e8 29 hxg6! hxg6 (the other capture also loses: 29...fxg6 30 ♕xf8+ ♔xf8 31 ♘xe6+ ♔e7 32 ♘xd8 dxe4 33 ♘b7) 30 ♘h5! gxh5 31 ♗h7+ ♘xh7 32 ♘xh7 f6 (if 32...f5, 33 g5! decides) 33 ♘xf6+ ♔f7 34 g5 White wins. But now the knight sacrifice leads to victory.

29 ♘xh7! ♘xh7 30 hxg6 fxg6 31 ♗xg6! *(D)*

B



31...♘g5

Black has no useful moves: 31...♗e8 32 ♗xh7+ ♕xh7 33 ♕xe6+ +–; 31...♕g7 32 ♗xh7+ +–; 31...♔h8 32 ♘h5 +–.

32 ♘h5 ♘f3+ 33 ♔g2 ♘h4+ 34 ♔g3 ♘xg6 35 ♘f6+ ♔f7 36 ♕h7+ 1-0

I would like to show you another remarkable game, played in the same tournament as the last. It also contains a move which caused me to rack my brains over how one could find such moves!

Fischer – Schweber

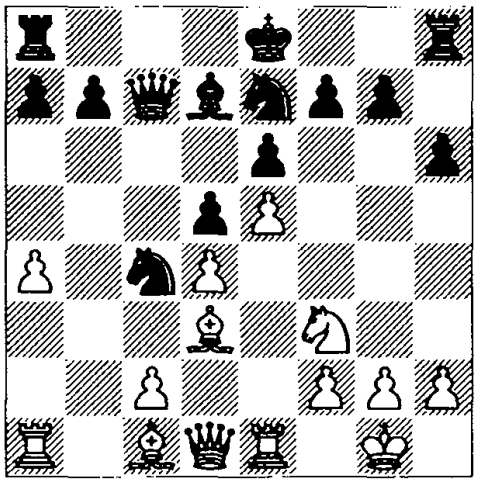
Buenos Aires 1970

1 e4 e6 2 d4 d5 3 ♘c3 ♗b4 4 e5 c5 5 a3 ♗xc3+ 6 bxc3 ♕c7 7 ♘f3 ♘c6 8 ♗e2 ♗d7 9 0-0 ♘ge7 10 a4 ♘a5 11 ♖e1 cxd4?!

Black has played the opening in dubious fashion and White has a lasting advantage.

12 cxd4 ♘c4 13 ♗d3 h6 *(D)*

W



14 ♘d2!

The knight moves away, opening a path for the white queen to the kingside. At the same time it exchanges the enemy knight which controls the squares a3 and e3, via which the white rooks will want to reach the 3rd rank. As the game shows, this is a very important factor. In short, with this inconspicuous, quiet-looking move, White lays the foundations for all of what follows.

14...♘xd2 15 ♗xd2 ♘c6 16 ♕g4 g6 17 ♖e3! 0-0-0 18 ♖g3!

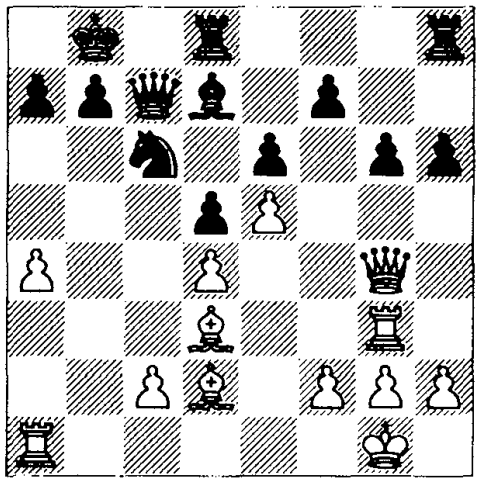
When I first saw this game, I was tormented for a long time by the question of what was the point of this move. And when the penny finally dropped, I was immediately assailed by a second, favourite question of mine: how was it that this move entered Fischer's head? Now I think I know the answers to both questions, and can share them with you. Firstly, the positionally very desirable move 18 ♖f3 is not good at this moment because of 18...f5! 19 exf6 (19 ♕xg6 ♘xd4 =) 19...e5 20 ♕xg6 e4. Secondly, ...f5 is just about Black's only way of seeking counterplay and on general grounds alone, it is worth trying to prevent such things as 18 a5 f5 19 exf6 e5 20 ♕xg6 ♖dg8. This explains why one thinks of the move of the rook to g3!

Of course, such considerations are by now familiar to us, so let us see how things developed after Black's reply, which is also logical and useful *on general considerations*:

18...♔b8?! *(D)*

He should have played 18...♖df8, although even then, Black's position is unpleasant.

W



There followed a reply which seems harmless for Black:

19 ♖f3!! f5

Allowing 20 ♖f6 is obviously very unattractive.

20 exf6 e5 21 ♕g3 ♘xd4 22 ♖e3 e4

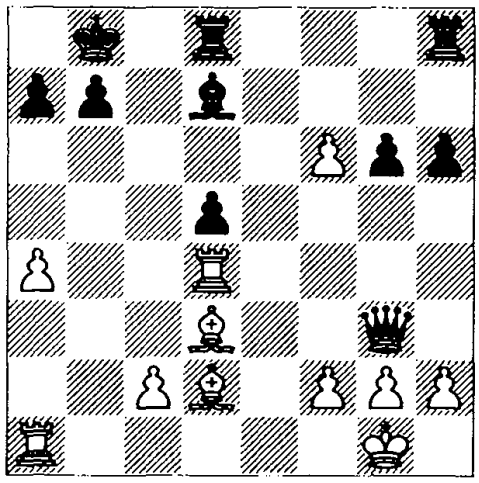
On 22...♘c6 follows 23 ♖xe5! ♘xe5 24 ♗f4 ♔a8 (in the variation 24...♖de8 25 ♖e1! ♘f3+? 26 gxf3 White wins) 25 ♗xe5 with a lasting advantage for White. But now what?

23 ♖xe4!

This receives only one exclamation mark, because the second was used for 19 ♖f3!!.

23...♕xg3 24 ♖xd4! *(D)*

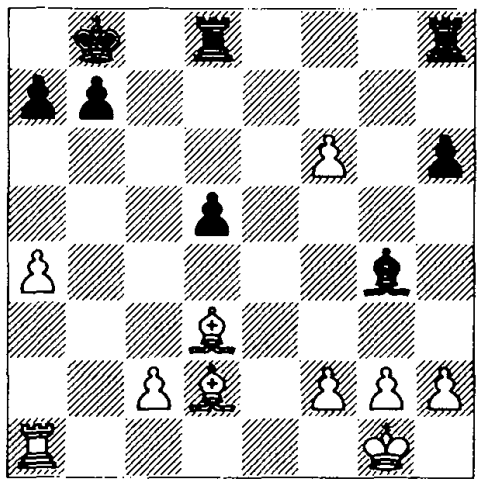
B



The queen is trapped! And although Black is able to return it and even win the exchange, his position remains very difficult.

24...♕g4 25 ♖xg4 ♗xg4 26 ♗xg6 ♖hg8 27 ♗h7 ♖h8 28 ♗d3 *(D)*

B



In the resulting position, although material is roughly equal, White's pawn on f6 and excellent bishop-pair makes Black's position very difficult. Fischer now demonstrates his customary marvellous technique in converting his advantage, and convincingly conducts the game to victory.

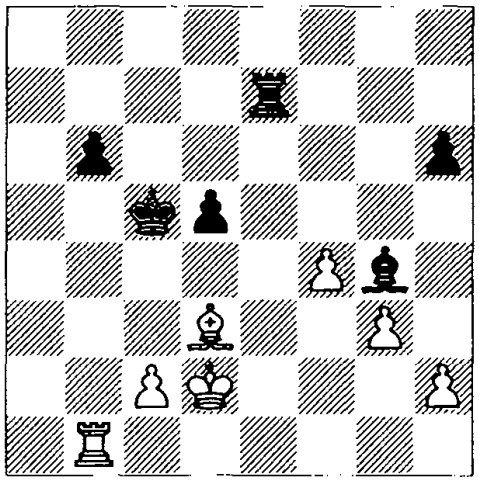
28...♖de8 29 f7! ♖e7 30 f8♕+ ♖xf8 31 ♗b4 ♖ff7 32 ♗xe7 ♖xe7 33 f3 ♗d7 34 a5!

An instructive moment. The pawn moves out from the enemy bishop's attack, reducing

the opponent's counterplay. After the less accurate 34 ♔f2 Black could fix the weakness by 34...a5!.

34...♔c7 35 ♔f2 ♖f7 36 ♔e3 ♔d6 37 g3 ♔c5 38 f4 ♗g4 39 ♖b1 ♖e7+ 40 ♔d2 b6 41 axb6 axb6 *(D)*

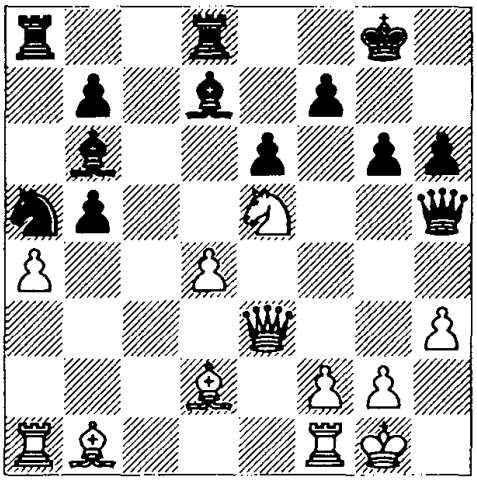
W



42 h3! ♗d7 43 g4 d4 44 f5 ♖e3 45 f6! ♖f3
Or 45...♖xh3 46 f7 ♖f3 47 ♖f1.
46 ♖f1 ♖xf1 47 ♗xf1 ♗e6 1-0

The following example also made a great impression on me when I first saw it.

W



Korchnoi – Ljubojević
Tilburg 1987

The position appears complicated and difficult to judge. The battle is going on in every part of the board, and both sides have their pluses and minuses. It seems fairly clear, however, that White's chances lie on the kingside, where the opponent has clear weaknesses, especially on f7 and e6, while Black's prospects consist of play against his opponent's isolated pawn on the queenside. In such positions, the most important factor is the initiative. However, immediate active operations by White do not bring him success, as shown by the calculation of the candidate moves:

a) 25 ♗xg6 fxg6 26 ♘xd7 ♖xd7 27 ♕xe6+ ♖f7 and here 28 ♕xb6? (better is 28 axb5 ♗d8 with roughly equal chances) loses to 28...♘c4.

b) 25 ♕f4 ♗e8 26 ♗xa5 (avoiding the jump of the knight to c4 or b3, which is unpleasant in many variations) and now 26...♖xa5! is very strong – the bishop remains on b6, the d4-pawn is lost, and White is in trouble.

Korchnoi drew the right conclusion from these two variations and played:

25 ♗xa5!!

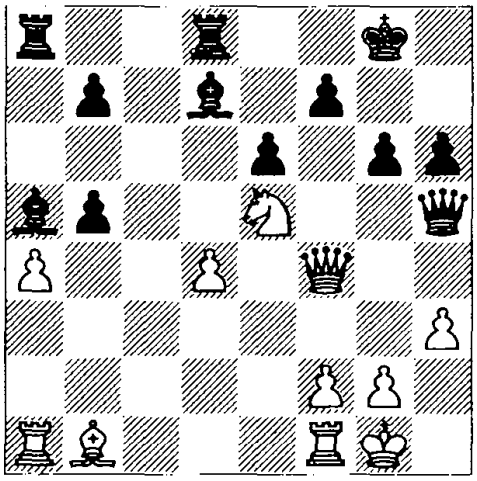
After this 'quiet' exchange, Black's position suddenly deteriorates.

25...♗xa5?!

After 25...♖xa5 the sacrifice 26 ♗xg6! is good: 26...fxg6 27 ♘xd7 ♖xd7 28 ♕xe6+ ♖f7 29 ♕xb6 and Black does not have the key knight jump to c4. Even so, Black should have gone in for this variation, because the alternative turns out to be worse.

26 ♕f4 *(D)*

B



26...♗e8

After 26...g5 27 ♕f6 ♗e8 28 ♘g4 White has a decisive advantage.

27 ♘g4 ♔f8

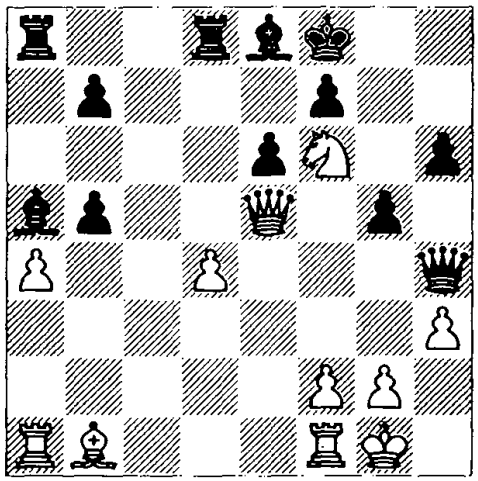
In the variation 27...♔g7 28 ♕f6+ ♔h7 29 axb5! ♕g5 White has a blow of terrible strength: 30 ♖xa5!! and after 30...♖xa5 31 ♗xg6+! fxg6 32 ♕f8 he obtains a decisive advantage.

28 ♘f6 g5

The only move.

29 ♕e5 ♕h4 *(D)*

W



30 ♘g4!?

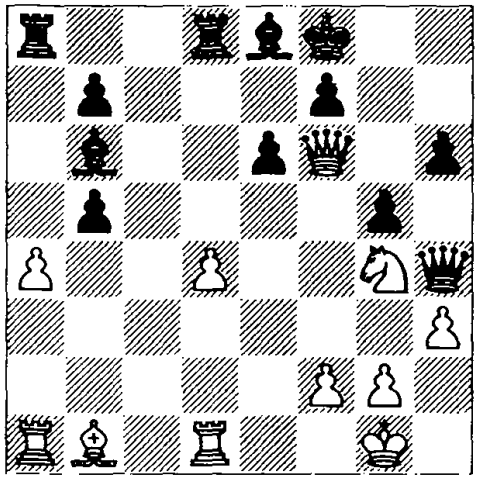
A very interesting moment. Fritz shows the forcing variation 30 ♕c5+! ♔g7 31 g3! ♕xh3 32 ♕e5! ♗c6 33 d5 exd5 34 ♘xd5+ ♔g8 35 ♘e7+ ♔f8 36 ♘xc6 bxc6 37 ♗f5 ♕h5 38 ♕h8+ ♔e7 39 ♖fe1+ mating. But given that White was probably suffering from time shortage, one cannot criticize his decision. Very logically, he tries to exploit the unfortunate position of his opponent's queen, combining this with an attack on the king, and in the end, he succeeds completely. Thus, even though White missed a forced win, he did not relinquish the initiative. From a creative point of view, his decision makes a very strong impression.

30...♗b6 31 ♕h8+ ♔e7 32 ♕f6+ ♔f8 33 ♖d1 *(D)*

33...♗c7

After this move, Black does not seem to be able to save the game. But even after the apparently stronger 33...♖xa4 White has a very powerful position; e.g., 34 ♖xa4 bxa4 35 ♗g6! ♖d5 (after 35...♖xd4 36 ♖xd4 ♗xd4 37 ♕xd4 fxg6 38 ♕f6+ ♔g8 there follows a thematic queen-hunt: 39 ♔h2! b5 40 g3 ♕h5 41 ♕e7 ♗f7 42 ♘f6+) 36 ♔h2! ♗d8 (only move) 37 ♕h8+ ♔e7 38 ♕g7! ♗c7+ 39 g3 and again the queen

B



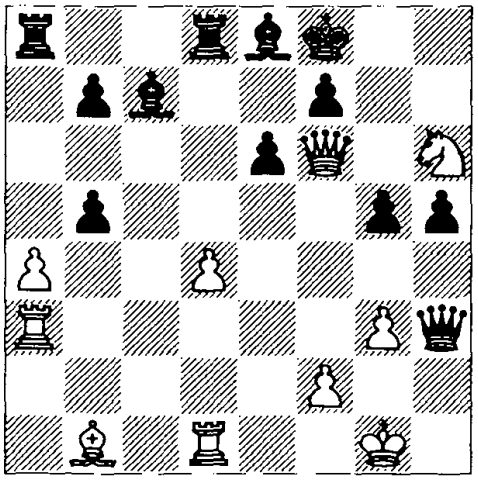
is caught. The bishop move aims to deprive White of the useful attacking resource g3, but with his next move, White renews the threat, and at the same time transfers the rook to the third rank, where it is extremely active. As a result, White develops a very strong attack.

34 ♖a3! h5

Trying to free the black queen. No better is 34...bxa4 35 ♖e3!! h5 (on 35...♖a6 follows 36 ♘xh6 ♕f4 37 ♘f5 ♕h2+ 38 ♔f1 ♗b5+ 39 ♗d3 soon mating) and now after 36 g3! ♕xh3 37 ♘h6 ♖d5 38 ♗d3! ♗d8 39 ♕h8+ ♔e7 40 ♗f1 the queen is lost.

35 g3! ♕xh3 36 ♘h6 *(D)*

B



36...h4

There is no way to save the game. For example: 36...♖a6 37 ♖e3! e5 (37...h4 38 ♘f5 +–) 38 ♕h8+ ♔e7 39 ♘f5+ ♔e6 (39...♔d7 40 dxe5+ ♔c8 41 ♘e7+ ♔b8 42 ♖xd8+ ♗xd8 43 ♕xe8 +–) 40 ♖xe5+ ♗xe5 41 ♕xe5+ ♔d7 42

♖c1 ♖c6 43 ♖c5!. This magnificent move was pointed out by Fritz and immediately solves all the problems. But now too there is a forced win.

37 ♗f5! ♗e5

37...exf5 38 ♖e3 with a quick mate.

38 ♕xe5 exf5 39 ♖e3 1-0

A real masterpiece!

The following game is equally interesting, but better-known.

Geller – Panno

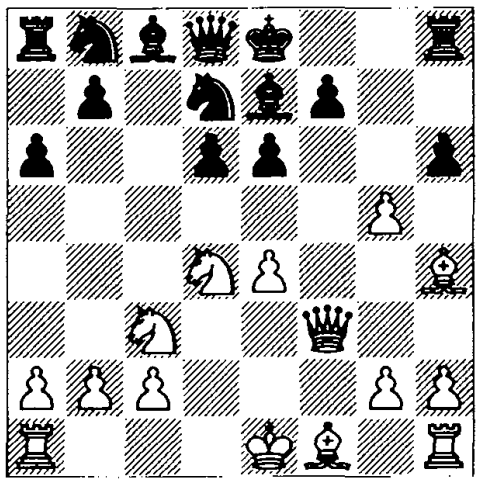
Interzonal, Gothenburg 1955

1 e4 c5 2 ♘f3 d6 3 d4 cxd4 4 ♘xd4 ♘f6 5 ♘c3 a6 6 ♗g5 e6 7 f4 ♗e7 8 ♕f3 h6 9 ♗h4 g5!?

The story of this game is well-known, but still remarkable. The three Argentinean players, Panno, Pilnik and Najdorf, jointly prepared this sharp move for the interzonal tournament. One can only regard it as a remarkable coincidence that all three, in the same round and with the same colour, reached this very position against three Soviet grandmasters: Geller, Spassky and Keres respectively.

10 fxg5 ♘fd7 *(D)*

W



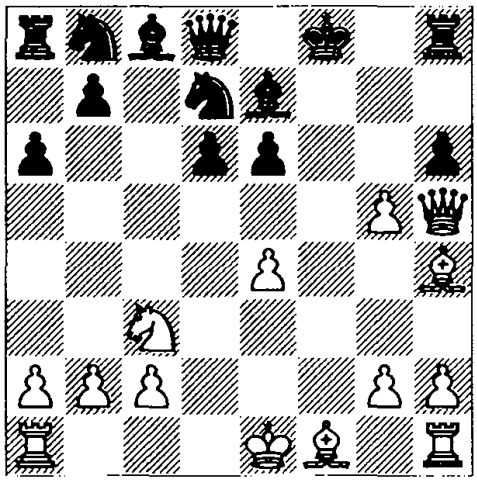
There was also another interesting psychological moment here. It is fairly clear that the most principled continuation is the sacrifice on e6. This requires detailed calculation from the very start, as was clear to all.

11 ♘xe6!

The first to play this move was Geller, who was not exactly known for his speed of play! "At this point, Spassky and Keres were still considering the sacrifice", wrote Geller. What made two such great players, known for their sharp play, hesitate over this move? Perhaps it was that they had not yet seen the key 13th move.

11...fxe6 12 ♕h5+ ♔f8 *(D)*

W



13 ♗b5!!

This is the move! It is highly spectacular, but its strength lies not in this, but in its effectiveness. What is the point of the move, and (my favourite question!), how does it enter the player's head? The answer can come *only* as a result of calculating the consequences of the logical developing moves: 13 ♗d3 (13 ♗e2 is the same) 13...♘e5 14 0-0+ ♔g7 15 ♗g3 and after 15...♘bc6, reinforcing the position of the key defensive piece, the e5-knight, Black has a winning position. The conclusion from this is obvious: do not allow the b8-knight to defend its colleague on e5. Hence, one arrives at the striking resulting move 13 ♗b5!!. In our day, this whole variation, including White's 13th move and the continuations given below, has become routine and attracts only a couple of lines in theoretical manuals. But originally, all this had to be found at the board. Geller's discovery proved to be a serious psychological blow for his opponent, who reacted very unfortunately:

13...♘e5?

After this move his position falls to pieces. Modern theory is still debating the position, but 13...♖h7! may well be an adequate defence.

After 14 0-0+ ♔g8 15 g6 ♖g7 16 ♖f7! ♗xh4 17 ♕xh6 ♖xf7 18 gxf7+ ♔xf7 one contentious line runs 19 ♖f1+ (19 ♕h7+ is a draw) 19...♗f6 20 ♕h7+ ♔e8(!) (20...♔f8(?) 21 e5 dxe5 22 ♗e2! is winning for White according to extensive analysis by Kirton); e.g., 21 ♕g6+ ♔f8 22 e5 dxe5 23 ♘e4 ♕b6+ 24 ♔h1 axb5 25 ♘xf6 ♔e7 26 ♕e8+ ♔d6 27 ♕xc8 ♖a4! (Cranbourne). The fact that Black may have a defence after 13 ♗b5 does not in any way detract from White's idea and one's respect for the thought-processes of the players who, over the board, found such a stunning resulting move. The important thing is to be able to orient oneself in positions of any degree of complexity.

14 ♗g3!

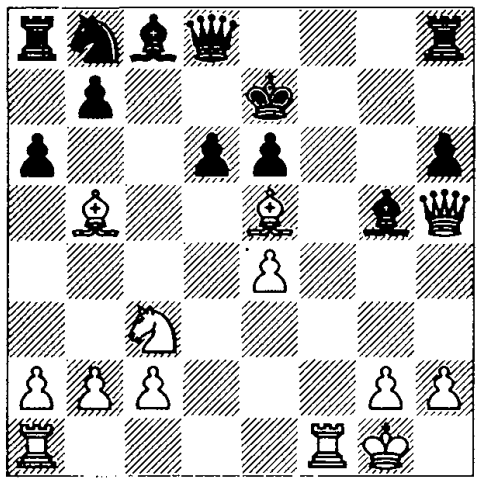
The reason for the exclamation mark will become clear later.

14...♗xg5

If 14...♘bc6 (or 14...♘bd7) White wins by 15 ♗xc6! (or 15 ♗xd7!). Once again, the obvious move gets an exclamation mark. The point is that 15 0-0+ ♔g8 16 ♗xc6 is less accurate due to 16...hxg5!. This is also the point of White's 14th move.

15 0-0+ ♔e7 16 ♗xe5 *(D)*

B



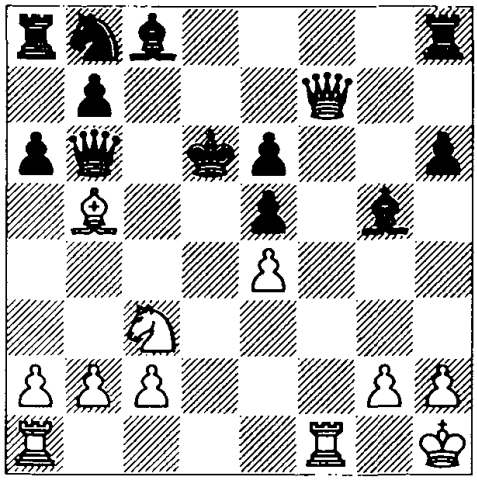
There can be no saving such a position.

16...♕b6+

In the event of 16...♗e3+ 17 ♔h1 dxe5 the strongest continuation is 18 ♕xe5! ♗d4 19 ♘d5+ ♕xd5 20 ♕c7+ ♕d7 21 ♗xd7 ♘xd7 22 ♖ad1 with a completely winning position for White. And on 16...♖f8 there could follow a variation such as 17 ♕g6! ♖xf1+ 18 ♖xf1 ♕b6+ 19 ♔h1 ♘d7 (19...dxe5 20 ♘d5+) 20 ♘d5+ exd5 21 ♖f7+ ♔d8 22 ♗xd6 and mate is unavoidable.

17 ♔h1 dxe5 18 ♕f7+ ♔d6 *(D)*

W



19 ♖ad1+ ♕d4

Or 19...♔c5 20 ♕f2+.

20 ♖xd4+ exd4 21 e5+! ♔c5 22 ♕c7+ ♘c6 23 ♗xc6 1-0

I should add that Geller was a master of resulting moves. We only have to remember the move he found in the ending of Gufeld-Klovans above, and also White's brilliant 27th move in Geller-Smyslov, Moscow Ct (5) 1965.

I have a final observation regarding resulting moves. As we have seen from the many examples we have looked at, resulting moves are often spectacular moves. This is quite natural, and is not because I have purposely chosen such examples. Rather, it is due to the nature of resulting moves which, as we know, are not based on the natural logic or outward appearance of the position. Resulting moves are based on those special, often hidden characteristics of the position, which do not immediately strike one's eye, and for this reason, they frequently make a strong impression when they appear on the board.

Summary

Almost everything that I want to say in this book has now been said. All that remains is to

remind the reader that for a player who wishes to improve his play, there is nothing so effective as independent work. Therefore, the final section of the book will be devoted to how one can train one's calculating abilities.

But before getting to the meat of this subject, I think it would be the appropriate moment to conclude our discussion of Kotov's theory of calculation. We have already dealt with the first three points, and now is the time to deal with the 4th and final element. This deals with what Kotov himself regarded as the most important part of the whole theory, and says that the player should train himself to examine each branch of the tree only once. Kotov's view is that the player should start by identifying all of the candidate moves, and should then examine each one in turn, going through each line only once, and then drawing his conclusions about which move to play. What can one say about this?

Firstly, we have already seen that there are situations in which, having started one's calculations, one soon detects the *general tendency of the development of events*, without having finished calculating all of the variations. And if this tendency appears to us to be highly unclear, we may temporarily put the variation to one side and examine other candidate moves, hoping to find something clearer. Secondly, the methodology of resulting moves clearly shows that sometimes, having calculated each candidate move once, one needs to return to them again, in the search for some feature which may prompt another move. And finally, the most important factor of all. Yes, one should try to *analyse each candidate move only once, but only while one is choosing a move. Once the choice has been made, one must go over it again, if time permits.* In addition, if one does this, then occasionally the player will detect some hole in it, and realize that it is not the correct move after all. Then he must turn again to the second choice amongst the candidate moves, and calculate that for a second time.

These recommendations of mine contradict those of Kotov, but find full agreement amongst the theory and practice of the strongest players. I have already spoken about the weaknesses of the first 3 points of Kotov's scheme, and now we see that 4th point too is not always applicable.

Out of Kotov's suggested formula for calculating variations, which as we have seen consists essentially of four points, only two points appear to be partially useful. Of these, all that remains of the first point is the terminology 'candidate moves', although Kotov does not provide any definition of what the term means. The fourth point, about calculating each line only once, is useful only to a limited extent. It is very doubtful that these few remaining straws left from Kotov's magnificent edifice can be made into anything useful, from either a theoretical or a practical standpoint.

Calculation Training

My recommendations are addressed first and foremost to people for whom chess is not their profession, but a recreation. It is nonetheless a recreation on which they are prepared to lavish time, not just playing, but also working independently at home. People who treat chess as a profession find their own methods of working, either by themselves or with a trainer, although I think even they will find some points of interest here.

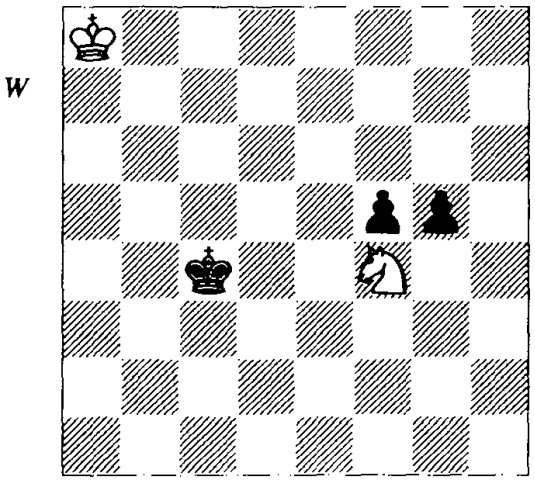
The first important point is to work *regularly*. If you work on tactics and calculation 5 or 6 days per week, then it will be quite sufficient to spend only 10-15 minutes per day, no more. But it must be done regularly!

And how should one do it? One very good method is to work with a good book of combinations. In doing so, one should bear in mind the things we have discussed in this book, in particular that combinations and calculation are inextricably linked and one cannot exist without the other. For this reason, a collection of combinations which gives only the moves of the 'solution', without the basic supporting variations, is of relatively little use.

In the next section, I shall present a selection of 60 exercises, of varying degrees of difficulty. But first, I wish to use some further examples, to show you how to make the most of such

exercises, and even before that, there is one other small point. It is well known that pawn endings are ideal for training one's powers of calculation. Furthermore, knight endings work in similar fashion to pawn endings, although there are certain differences.

In this section, we shall look at training one's calculation by using a rare, but interesting type of ending: knight against pawns. The following study does not require very complicated calculation, but is still very useful in his respect.



White to play and draw
V. Chekhover
Shakhmaty v SSSR, 1955

The logic of this position is as follows: the knight cannot blockade the black pawns, and can only hope to stop them by exploiting its exceptional power to create forks. It is also obvious that the black king only needs to make one move to the side of his pawns, and the knight will lose most of its chances. From this, we can conclude the following: *without even calculating the consequences*, we can be sure that the only moves worth looking at involve attacking the enemy pawns. The knight must operate with threats, so as not to give his opponent a breathing space. 'Do what you have to do, and what will be, will be!', as the saying goes. This approach is reflected in the following variation:

1 ♘e6!

Only this way. After 1 ♘h3? g4 the knight does not have a follow-up attack on the pawns.

1...g4 2 ♘g7 f4

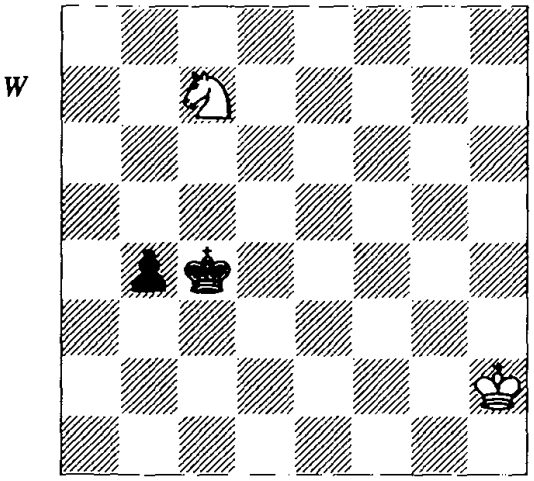
After 2...g3 3 ♘xf5 g2 4 ♘e3+ the knight achieves its aim. A good sign!

3 ♘h5! f3 4 ♘f6 g3 5 ♘e4 g2 6 ♘d2+

and White draws.

Of course, this was a study and the author purposely developed these various, highly similar variations. But such positions also arise in games, and one should always think along such lines.

The next study is much more difficult, and is a superb creation by Grigoriev.



White to play and draw
N. Grigoriev
1938

In this study, White has to find a whole series of 'only' moves.

1 ♘e8!

The other candidate move 1 ♘e6? leads to defeat: 1...b3 2 ♘g5 b2 3 ♘e4 ♔d3.

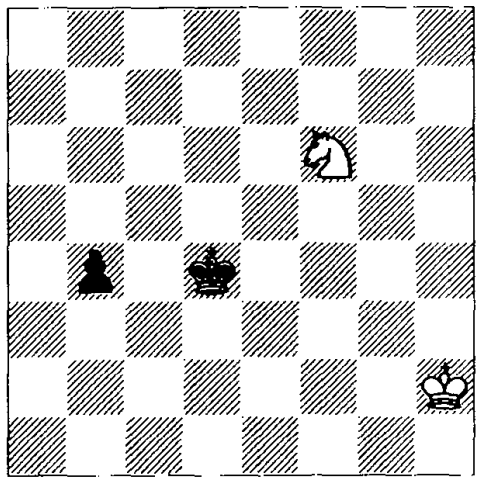
1...♔c5!?

A good try. After 1...b3 2 ♘d6+ ♔c3 (2...♔b4 3 ♘e4 b2 4 ♘d2 =; 2...♔d3 3 ♘b5 b2 4 ♘a3 =) White draws by 3 ♘e4+! ♔c2 4 ♘d6! b2 5 ♘c4.

This variation conceals some valuable information about the mechanisms which operate in the position. I mean primarily the possibility of a fork on a3 and the importance of the d6- and b5-squares as jumping-off points for the knight. It is extremely useful to keep this sort of information in mind while calculating, because it

helps one to find the correct lines, and also *to calculate variations by means of small, previously calculated segments.*

2 ♘f6 ♔d4 *(D)*

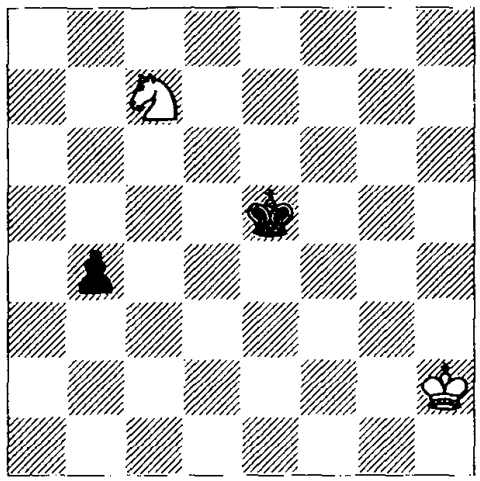


It seems that White is in trouble, as the black king keeps the knight at bay. But White manages to save himself by manoeuvring the knight via the key e8-square, from where it reaches d6 and b5, the importance of which we have already noted.

3 ♘e8! ♔e5!?

3...b3 4 ♘d6 b2 5 ♘b5+. With the text-move, the knight is again held off, but it finds a way in.

4 ♘c7! *(D)*



4...♔d6

The reply is not hard to find: again the knight returns to the key square.

5 ♘e8+!

All the while the black pawn is on b4, the other reply does not work: 5 ♘b5+? ♔c5 6 ♘c7 b3 7 ♘e6+ ♔c4.

5...♔d5

We are already familiar with the other tries: 5...♔e5 6 ♘c7; 5...♔c5 6 ♘f6 ♔d4 7 ♘e8!.

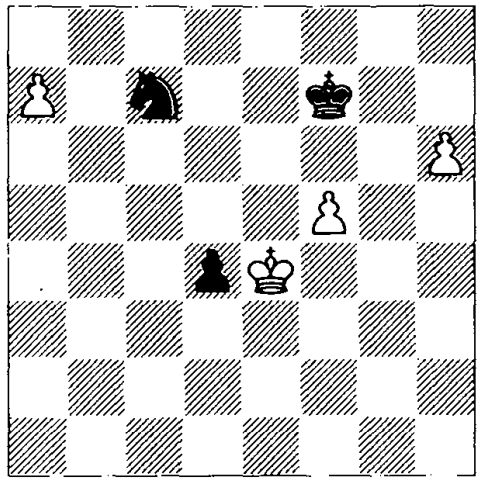
6 ♘f6+

The same thing results from 6 ♘c7+ ♔c4 7 ♘e8!. The e8-square is critical.

6...♔d4 7 ♘e8!

Black cannot strengthen his position. Draw.

To finish, I shall show two practical endgames with this same material balance:



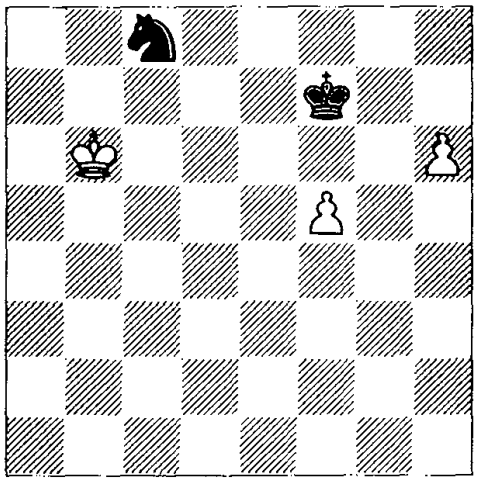
Svidler – Anand
Dos Hermanas 1999

In this position, a surprising thing happened: with his turn to move, White offered a draw! This was a mistake in both the objective and subjective senses. Subjectively, it was wrong because by taking the pawn, White is not risking anything, and has no reason to hurry with any draw offer, unless he was in time-trouble, which seems unlikely. Secondly, and more important still, even such a great player as Peter Svidler could not be 100% certain that he had not erred in his calculations. The point is that when one begins to calculate a variation, the further one goes, the more difficult it is to visualize the resulting positions, and this makes errors increasingly likely. For this reason, if one can play the first 2-3 moves of the variation on the board (for example, because they are forced

anyway), then it makes good practical sense to do so, since then one can calculate the remaining moves of the variation from a slightly more advanced starting point. This was the case here. Svidler could have first played the forced moves 70 ♔xd4 ♘b5+ 71 ♔c5 ♘xa7 72 ♔b6, waited for his opponent to reply, and only then begun to calculate the succeeding moves. At move 72 Black has a choice of two moves. The first is the trappy 72...♔g8 (hoping for 73 ♔xa7? ♔h7 drawing), but then 73 f6! ♘c8+ 74 ♔c7 ♘a7 75 ♔d7 ♘b5 76 ♔e7 wins easily.

Things are slightly more tricky for White after 72...♘c8+ *(D)*.

W



It is very likely that Svidler reached this position in his calculations, decided that the enemy king and knight together could stop the two isolated pawns, and so offered a draw. This was his objective mistake. Had he reached this position from close up, as discussed above, then he would easily have seen that it is winning after 73 ♔c7!. There are two variations:

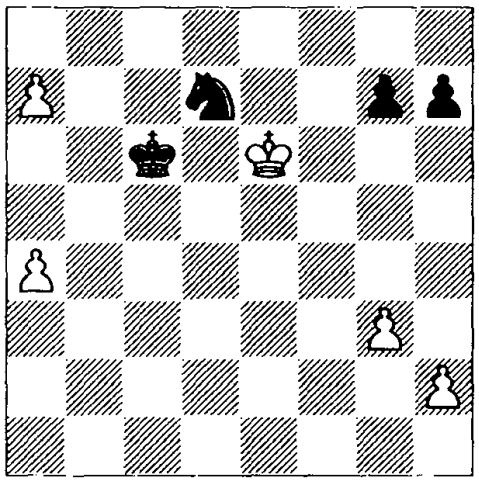
a) 73...♘a7 74 ♔d7! ♘b5 (74...♔f6 75 h7! ♔g7 76 f6+ ♔xh7 77 f7 ♔g7 78 ♔e8!) 75 h7 ♔g7 76 f6+ ♔xh7 77 f7 ♔g7 78 ♔e7!.

b) 73...♘e7 74 h7 ♘d5+ (74...♔g7 75 f6+) 75 ♔d6 ♔g7 76 ♔xd5 ♔xh7 77 ♔e6.

As a result of Svidler's error, the game was spoiled, but we have an excellent illustration of the theme 'when should one stop calculating?'

By contrast, the following example is a case of superb calculation, in a much more complicated situation:

B



Petrosian – Geller

Candidates tournament, Amsterdam 1956

The position is highly complicated and difficult to calculate, with the result hanging on a single tempo. Therefore, it is not so surprising that Geller erred on his next move:

51...♘b6?

It seems that Black could have saved the game with 51...♘c5+! 52 ♔f7 ♔b7 53 ♔xg7 ♘e4 54 ♔xh7 (Euwe gives as winning 54 ♔h6(?) ♔xa7 55 g4 ♘f2 56 ♔g5! ♘h3+ 57 ♔h4, continuing 57...♘f2(?) 58 ♔g3 ♘e4+ 59 ♔f4 ♘d6 60 h4! ♘e8 61 h5, etc., but Black holds by means of 57...♘g1! 58 ♔h5 ♘f3 59 h4 ♔b6 60 g5 ♘e5 61 ♔h6 ♘f3 62 h5 ♔a5 63 g6! hxg6 64 ♔xg6 ♘e5+, drawing) 54...♘d2! 55 g4 ♘f3. One of the kingside pawns is lost and the knight can stop the other one.

52 a5 ♘a8 53 ♔f7?!

Only here does White commit any sort of inaccuracy in this ending. He could win quickly after 53 h4! ♔b7 54 ♔f7 g5 55 h5!. Fortunately for us, his inaccuracy leads to a great deal of interesting and useful material.

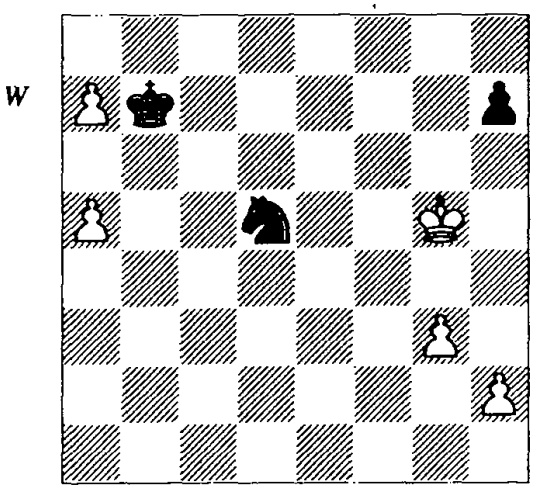
53...g5

Black draws the enemy king as far away as possible, thereby gaining time to bring his knight to the kingside.

54 ♔f6 g4 55 ♔g5 ♔b7 56 ♔xg4 ♘c7 57 ♔g5 ♘d5 *(D)*

58 h3!

The knight has now reached the thick of the action, and White must constantly be on the alert. Thus, 58 ♔h6? ♘e3! leads to a draw.



58...♘c3 59 g4

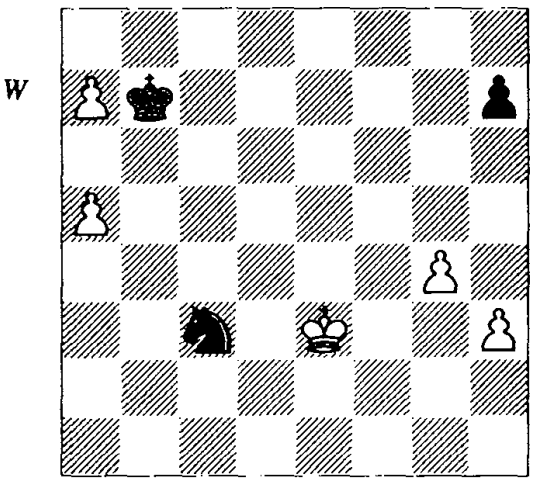
With this move, White begins to carry out his winning plan. This consists of advancing his kingside pawns as far as possible, and then taking his king towards the h7-pawn. If the pawns do not first advance, it will be easier for the knight to fight against them.

59...♘e4+ 60 ♔f5 ♘g3+

60...♘d2 61 h4 and White wins more rapidly.

61 ♔f4 ♘e2+ 62 ♔e3 ♘c3 *(D)*

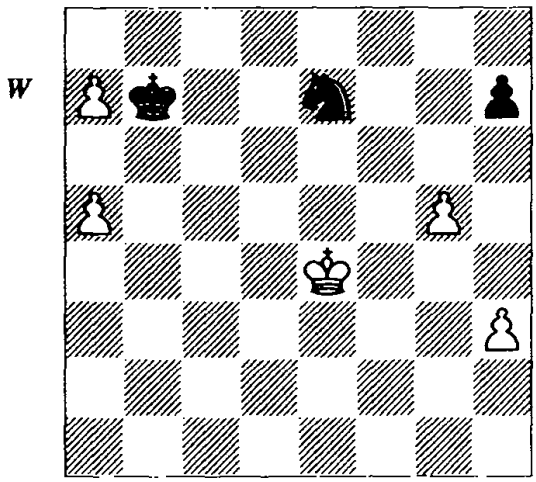
After 62...♘g1 the win comes more quickly: 63 h4 ♘h3 64 g5. And after 62...♘c1 follows 63 h4 ♘b3 64 h5 ♘c5 65 ♔f4 h6 66 ♔e5 ♔xa7 67 ♔f6, also winning.



63 g5 ♘d5+!?

Geller defends stubbornly and makes his opponent's life as difficult as possible. In the event of 63...♔xa7 White wins without difficulty by 64 h4 ♔a6 65 h5 ♘d5+ 66 ♔e4.

64 ♔e4 ♘e7 *(D)*



65 ♔f4!

Black keeps on setting traps. After the natural 65 h4? a draw results from 65...h6! 66 gxh6 ♘g8 67 h7 ♘f6+ 68 ♔f5 ♘xh7 69 ♔e6 ♘f8+ 70 ♔f7 ♘d7.

65...♘d5+

Other tries also fail, but White would have had more problems after 65...♘g6+ 66 ♔g4 ♘e5+. He must then avoid the traps 67 ♔h5? ♘f3, 67 ♔f5? ♘f3 and 67 ♔f4? ♘g6+. The only winning path is 67 ♔g3! ♔xa7 68 h4! ♔a6 69 h5 ♔xa5 70 ♔f4 ♘f7 71 ♔f5 ♔b5 72 ♔f6 ♘d6 73 g6 hxg6 74 ♔xg6.

66 ♔f3

Now there is an alternative: 66 ♔e5 ♘e7 67 ♔f6 ♘g6 68 ♔g7 ♘f4 69 h4 ♘g2 70 h5 ♘f4 71 h6 ♘e6+ 72 ♔f6 ♘f4 73 ♔f7! ♘h3 74 g6 winning.

66...♘e7 67 h4 ♔xa7 68 ♔f4!

Avoiding the final trap, which was 68 ♔e4? h6! =.

68...♘g6+ 69 ♔g4 ♘e7 70 h5! ♔a6 71 ♔f4 ♔xa5 72 ♔e5 ♔b6 73 ♔e6!

This way, White wins more easily than after 73 ♔f6 ♘d5+, when he has to avoid yet another trap: 74 ♔g7? ♘f4 75 h6 (75 g6 ♘xg6! =) 75...♘e6+ 76 ♔f6 ♘xg5! 77 ♔xg5 ♔c6 78 ♔f6 ♔d7 =. Instead, he wins by 74 ♔f7! ♘f4 75 h6.

1-0

Tigran Petrosian was not only a great master of strategy, but also a marvellous calculator and tactician.

Conclusion

We have seen in this book just how many different situations can occur that demand from the player the ability to calculate well. I have sought to explain and formulate all the essential principles, laws and methods. I hope I have succeeded in convincing the reader that, in the final analysis, the ability to see tactical possibilities and calculate variations is the single most important factor in achieving success in chess. And I also hope that the reader can now appreciate the sort of shoals and sandbanks through which the player must navigate when calculating variations, and the frequently narrow channels which constitute the only correct line of play in many positions.

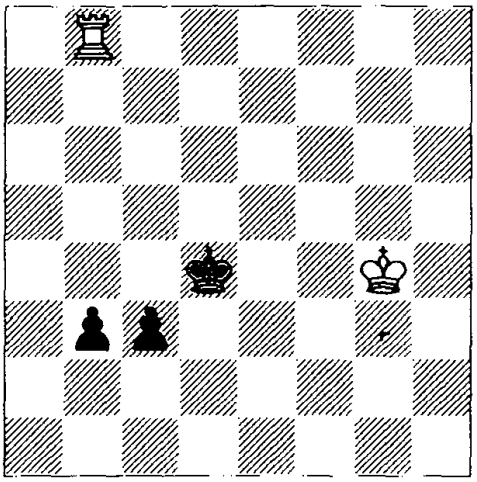
It is precisely the complexity and importance of this work which explains why there are so many fairly good chess-players, and so few really strong ones! It follows from this that for any player, but especially one who has not reached the top, regular work in this area is the truest and surest way to increase his playing strength.

In view of this, and in order to assist you with your work, I finish with some exercises.

Exercises for Part 2

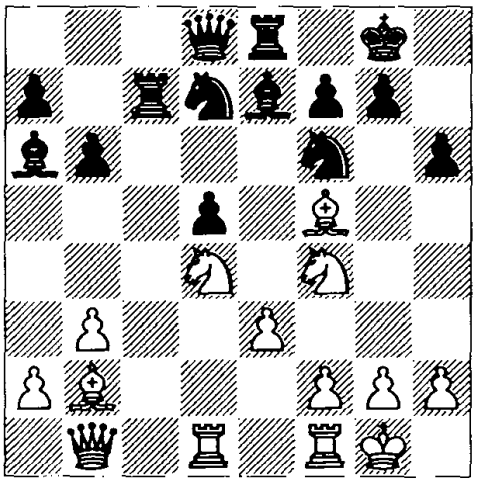
The collection includes examples from the simplest to the very complicated, so as to interest as wide a range of readers as possible.

41
W



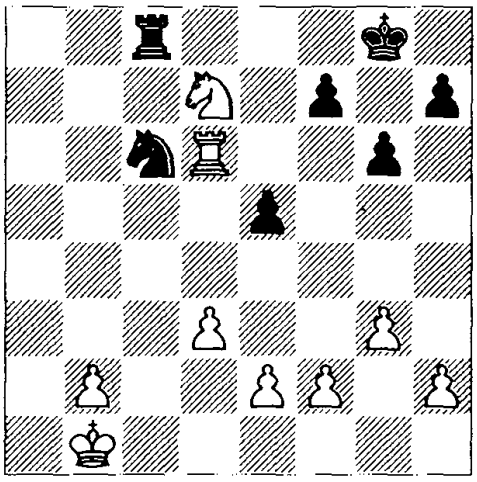
White to play

43
W



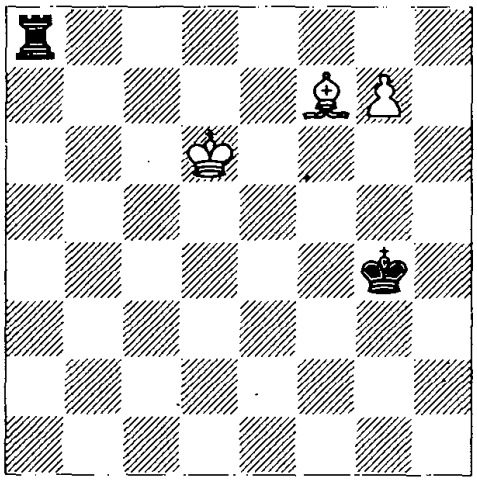
White to play

42
W



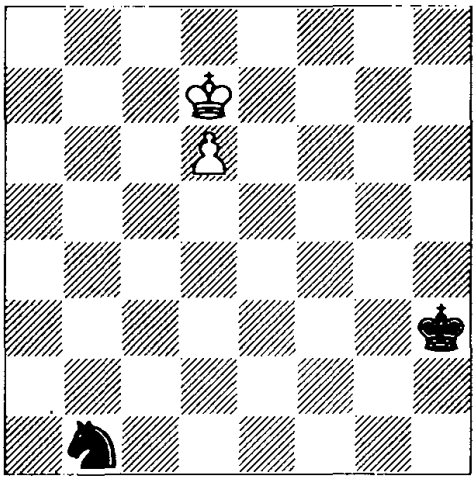
White to play

44
W



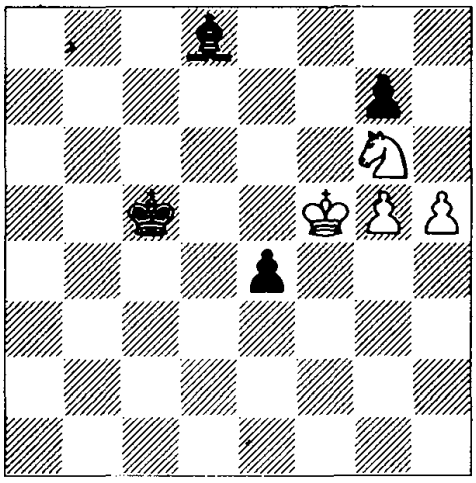
White to play

45
B



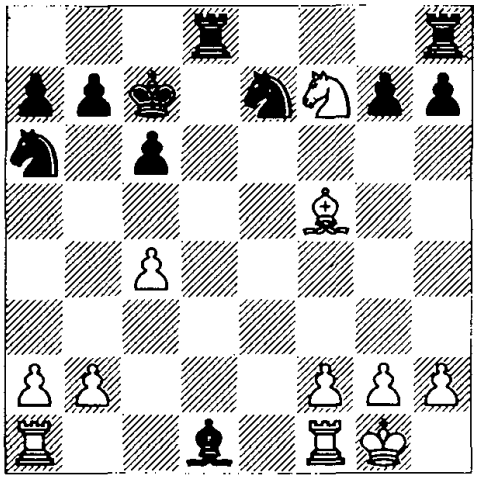
Black to play

46
W



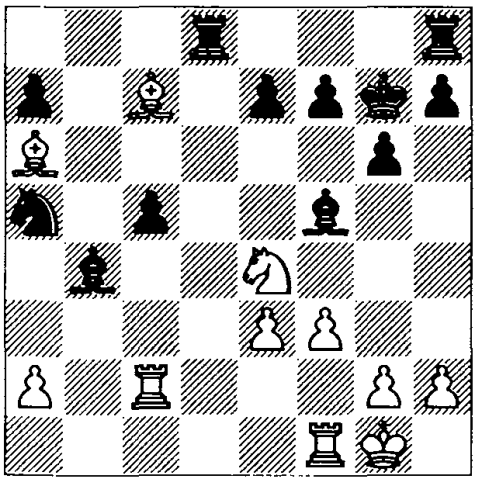
White to play

47
W



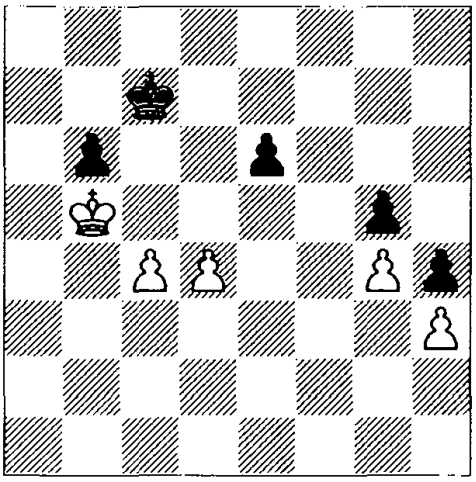
White to play

48
W



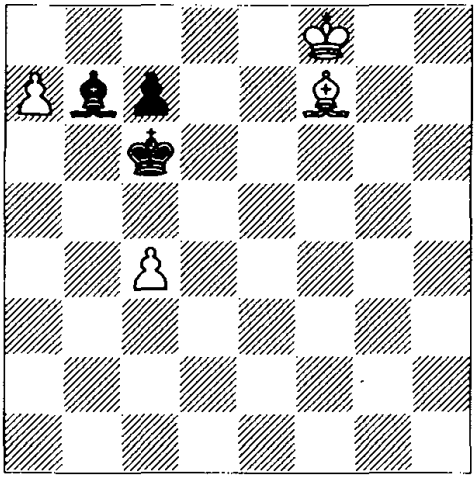
White to play

49
W



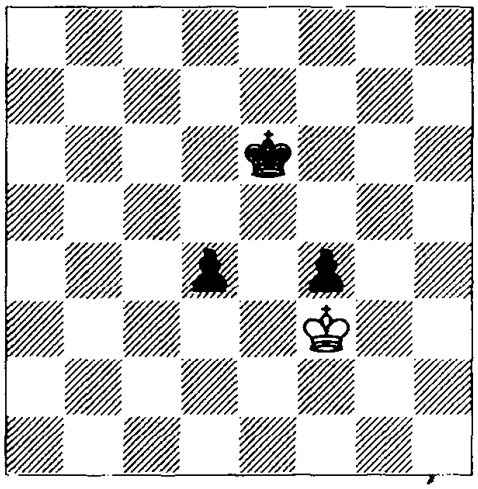
White to play

50
W



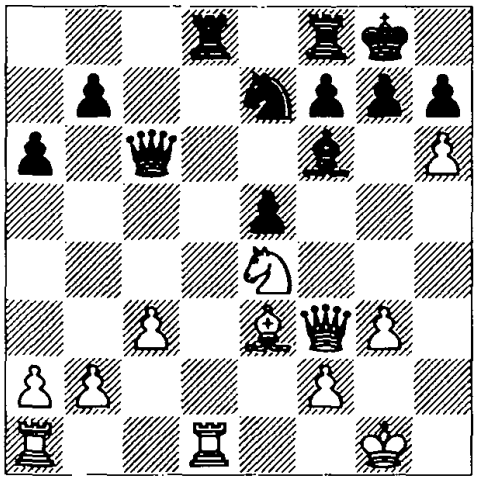
White to play

51
W



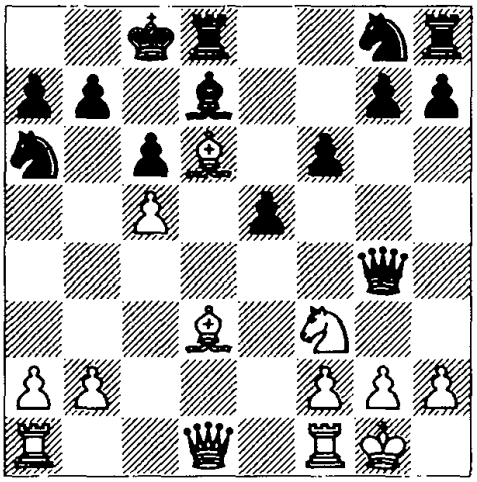
White to play

54
W



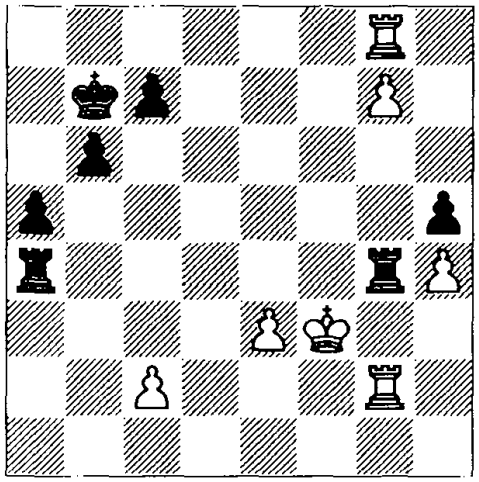
White to play

52
W



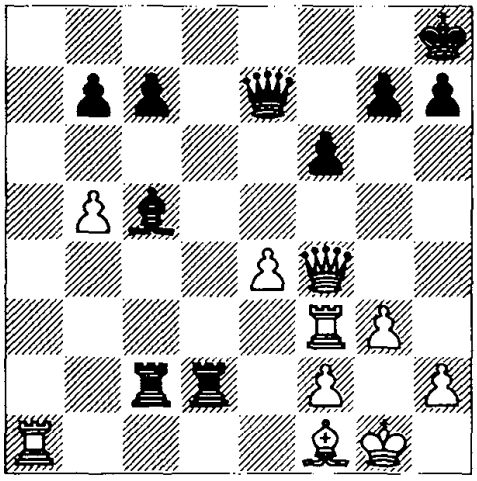
White to play

55
W



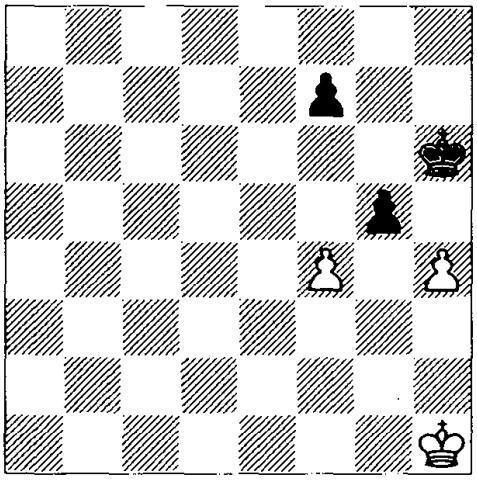
White to play and win

53
B



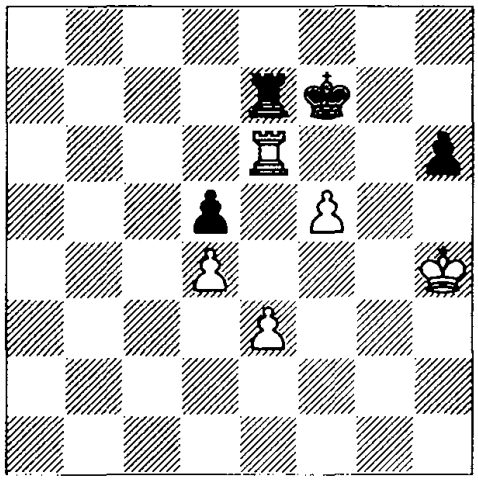
Black to play

56
W



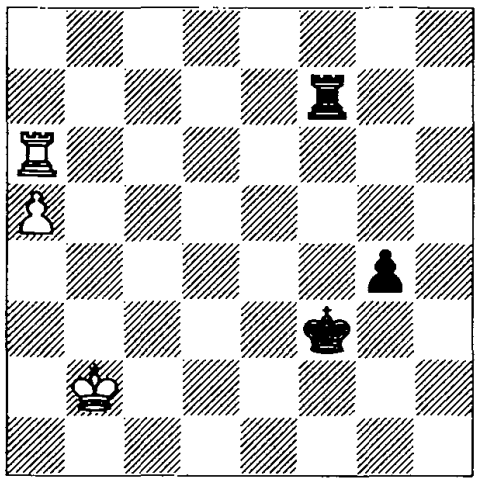
White to play

57
W



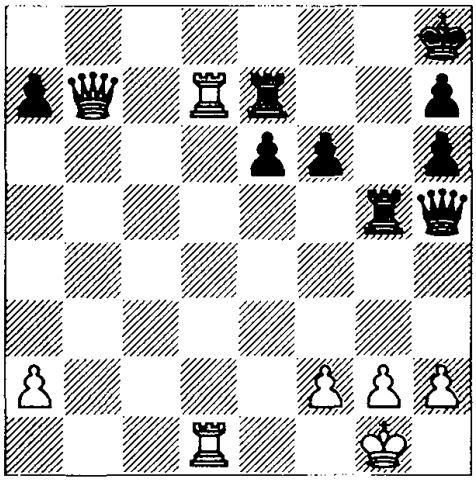
White to play

60
B



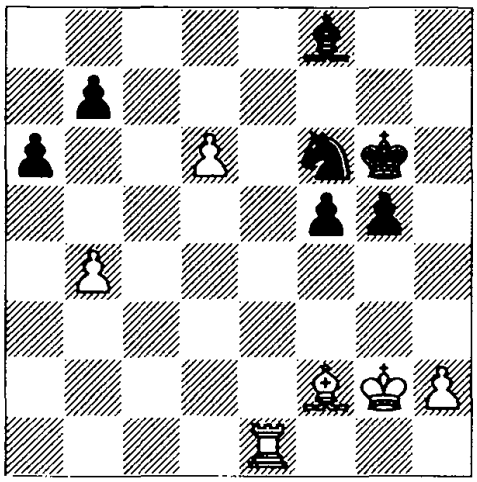
Black to play

58
W



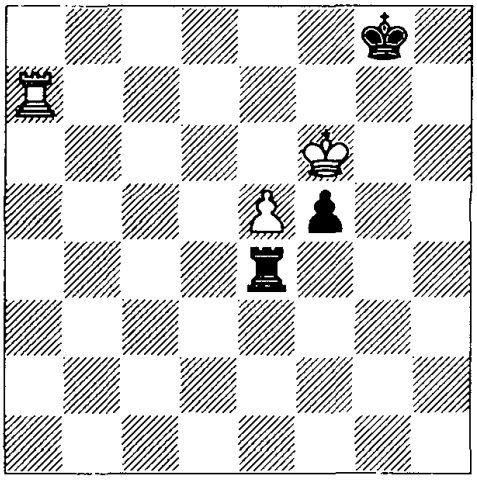
White to play

61
W



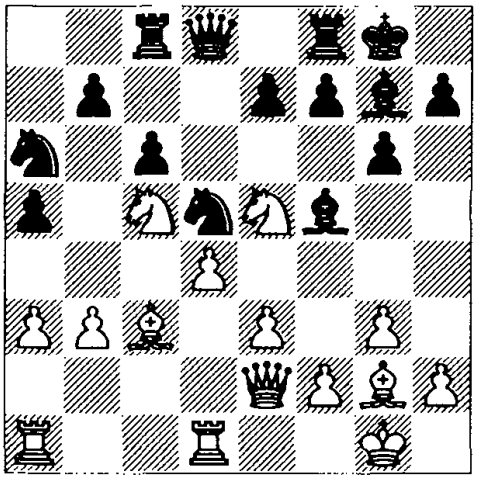
White to play

59
W



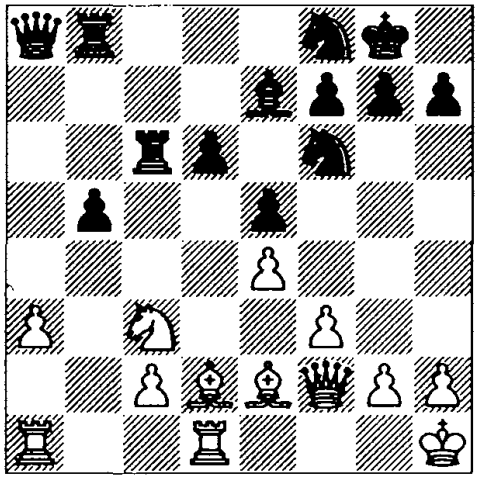
White to play

62
W



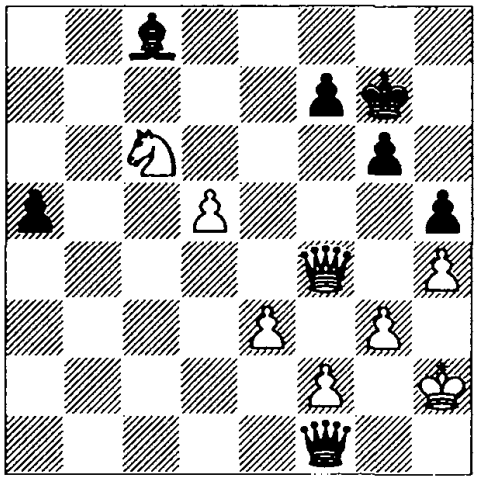
White to play

63
W



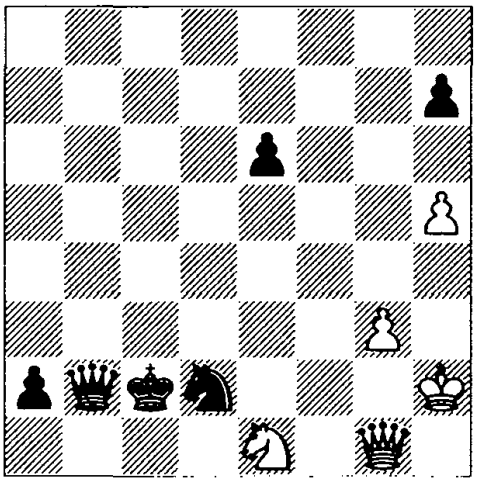
White to play

66
W



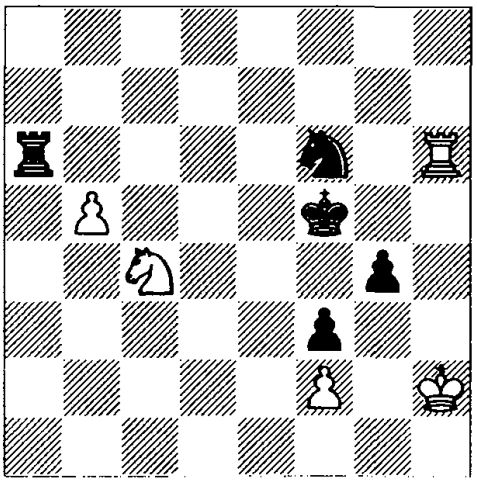
White to play

64
B



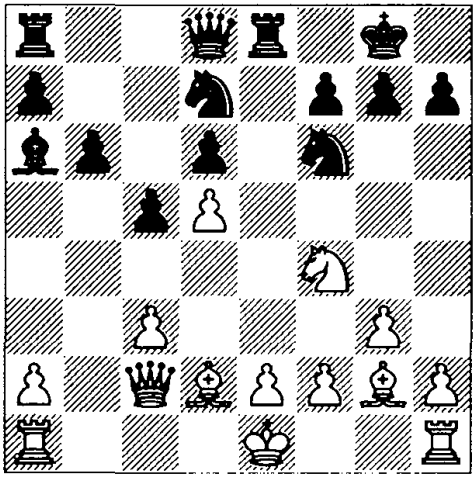
Black to play

67
B



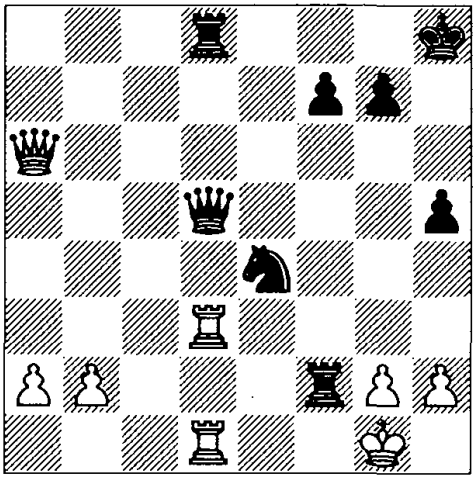
Black to play

65
B



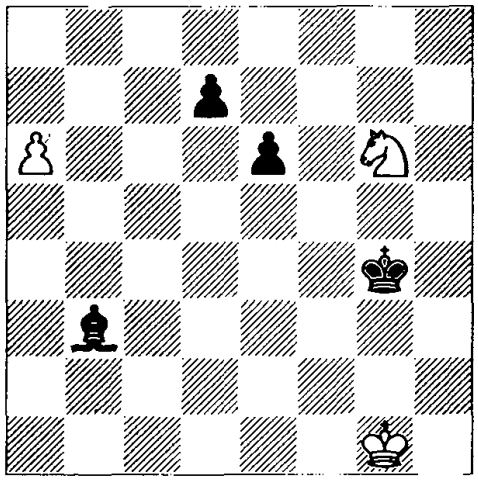
Black to play

68
B



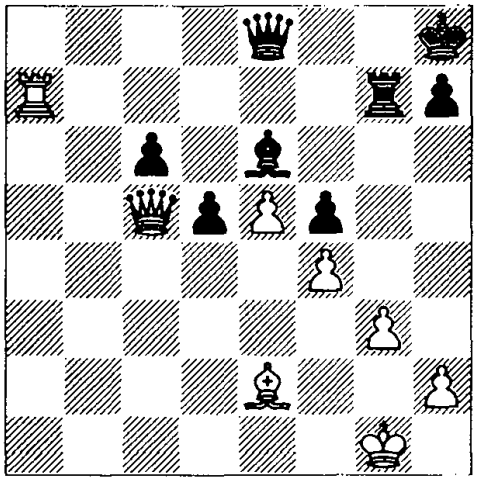
Black to play

69
W



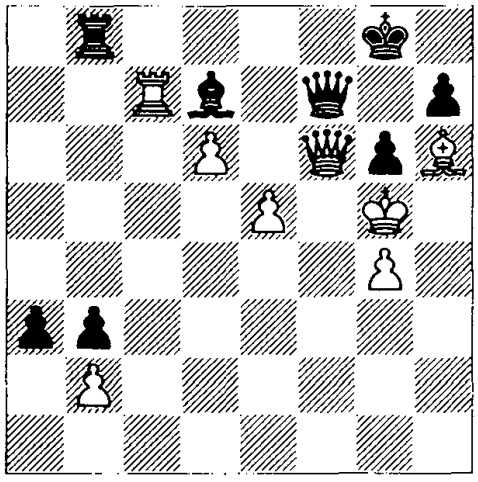
White to play

70
W



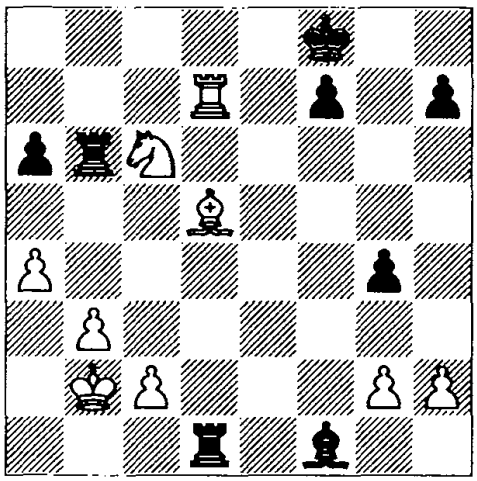
White to play

71
W



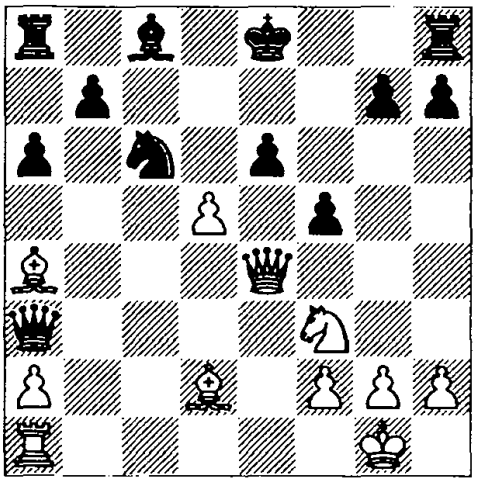
White to play

72
W



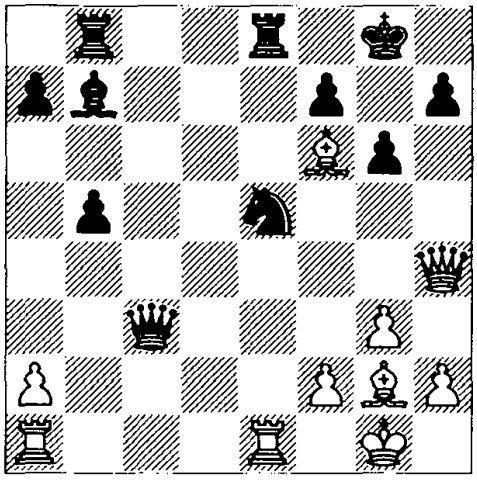
White to play

73
W



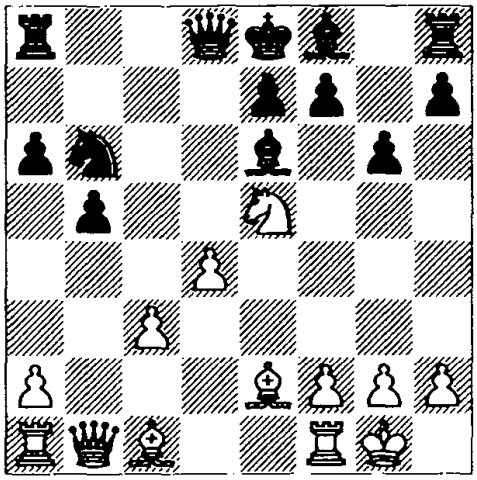
White to play

74
W



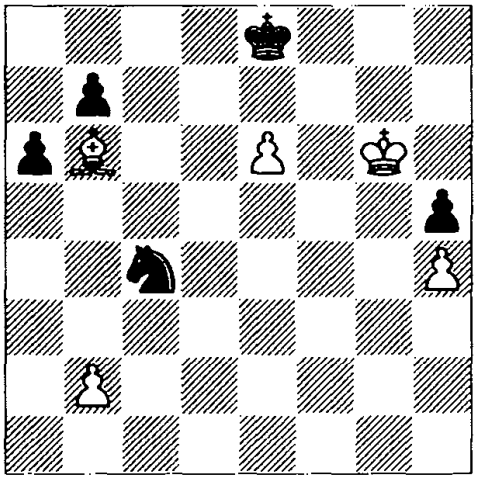
White to play

75
W



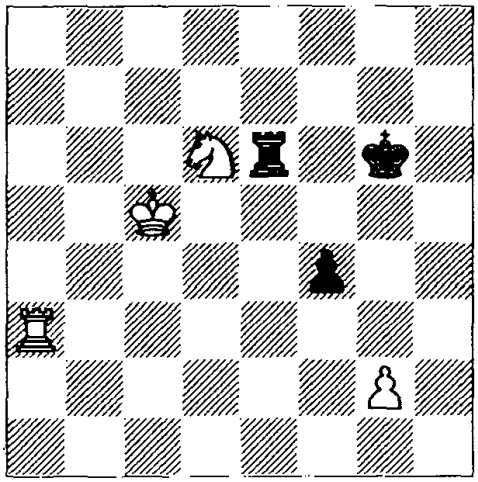
White to play

78
W



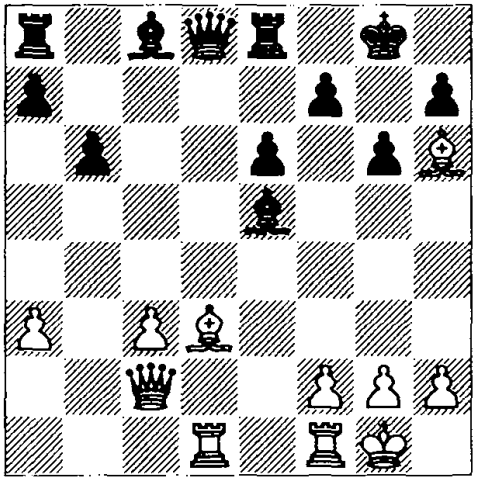
White to play

76
W



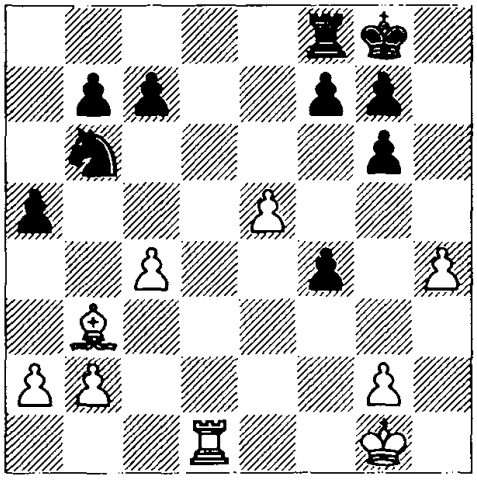
White to play

79
W



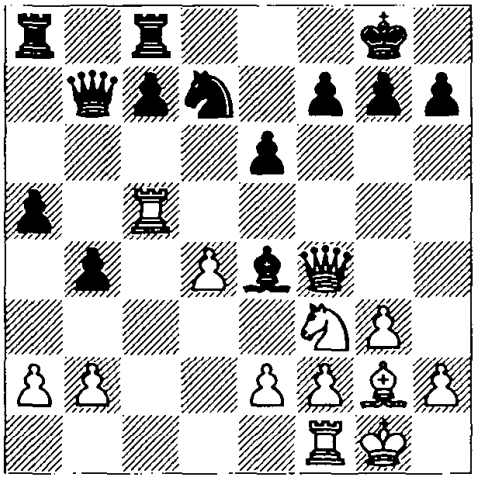
White to play

77
W



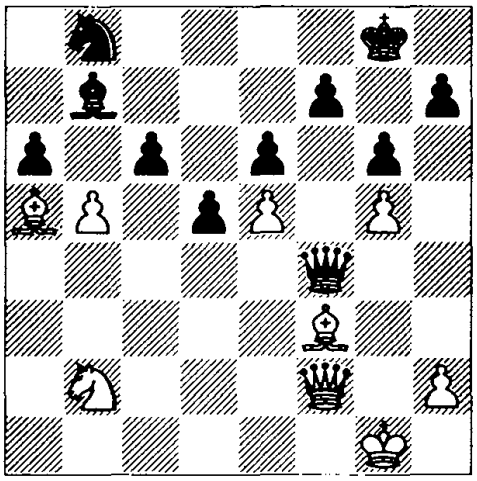
White to play

80
W



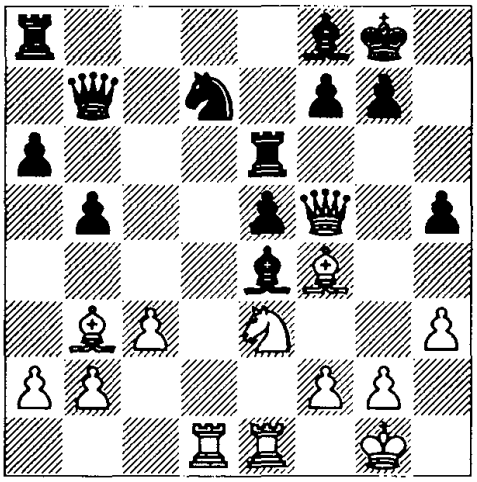
White to play

81
W



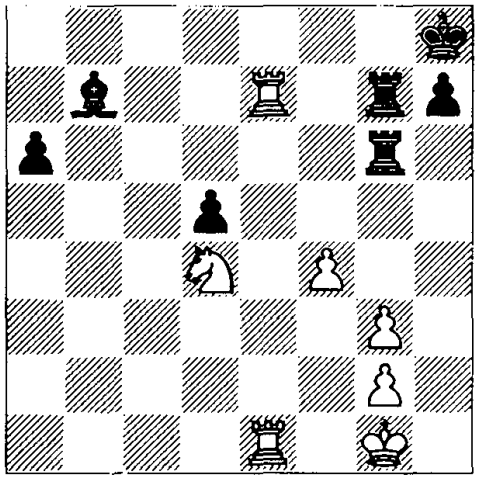
White to play

82
W



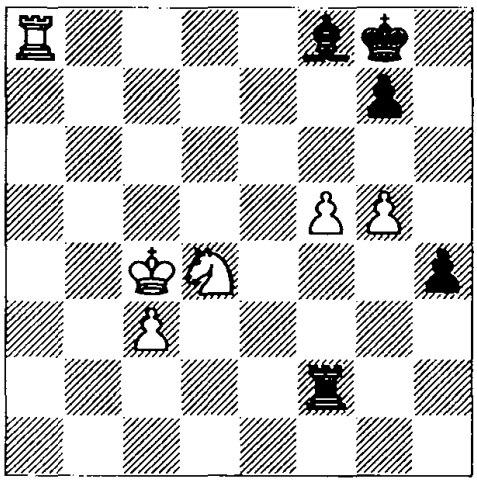
White to play

83
W



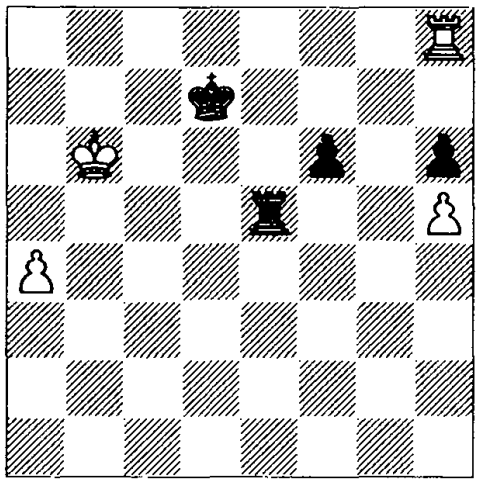
White to play

84
W



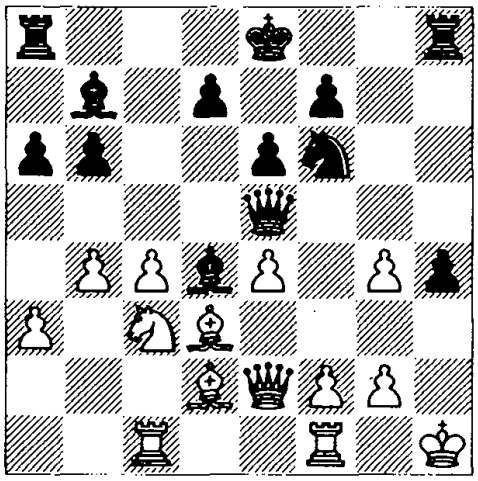
White to play

85
B



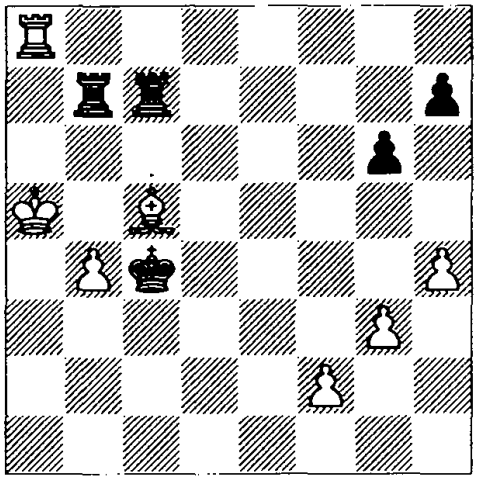
Black to play

86
B



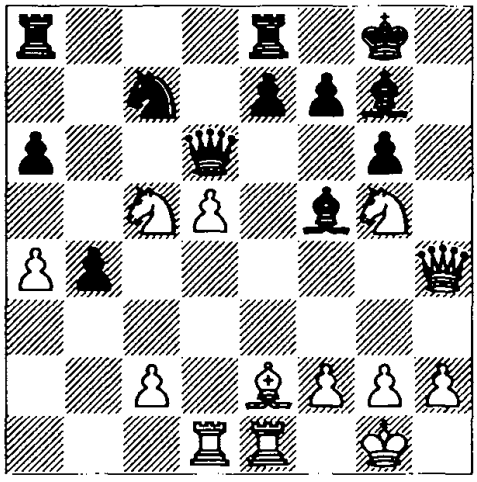
Black to play

87
B



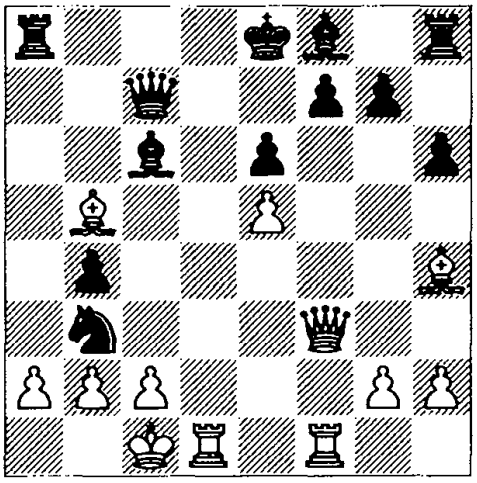
Black to play

90
W



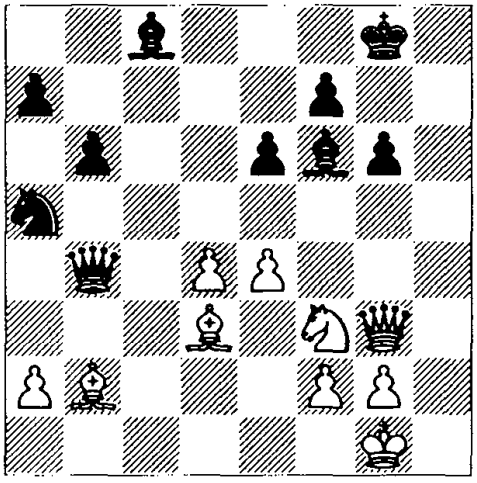
White to play

88
W



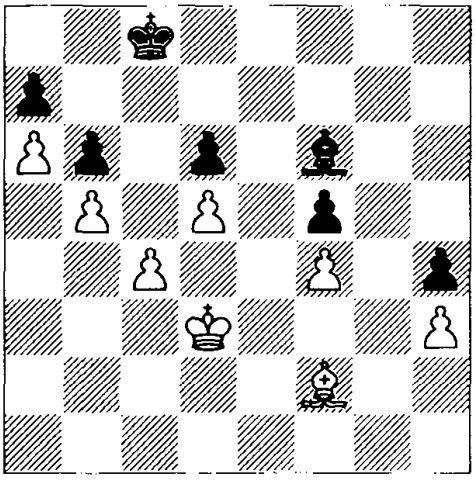
White played 21 ♔b1!. What is the point of this move?

91
W



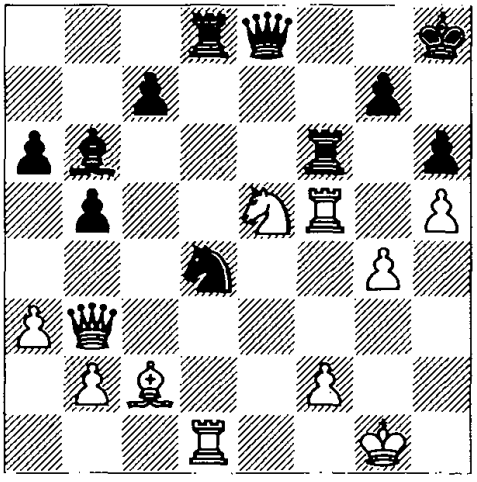
White to play

89
W



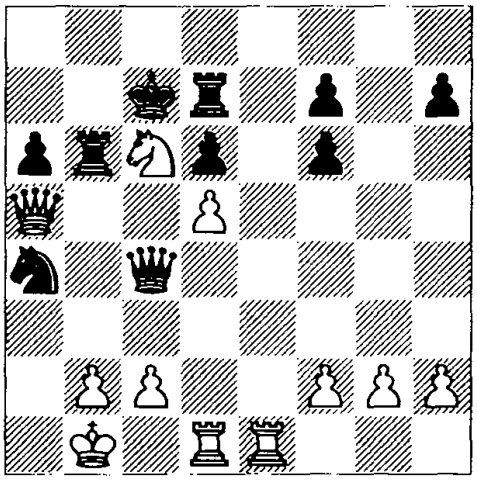
White to play

92
W



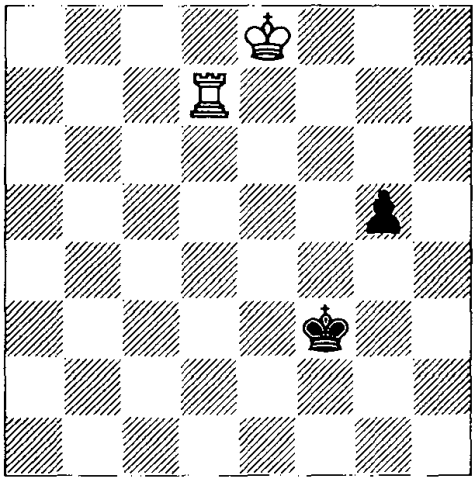
White to play

93
W



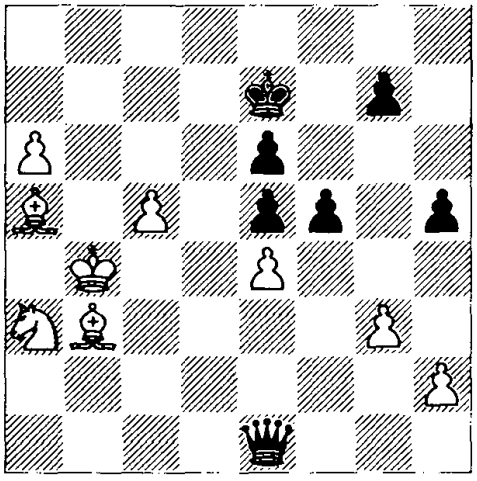
White to play

94
W



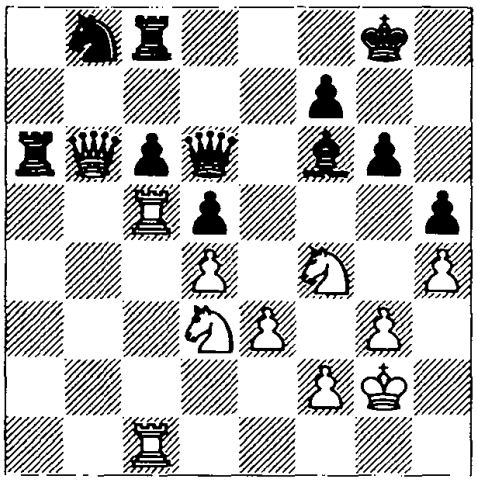
White to play

95
W



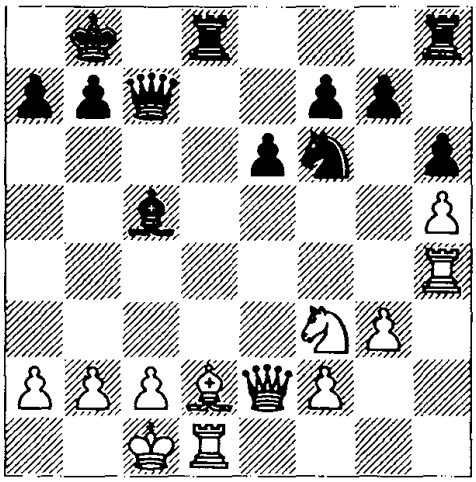
White to play

96
W



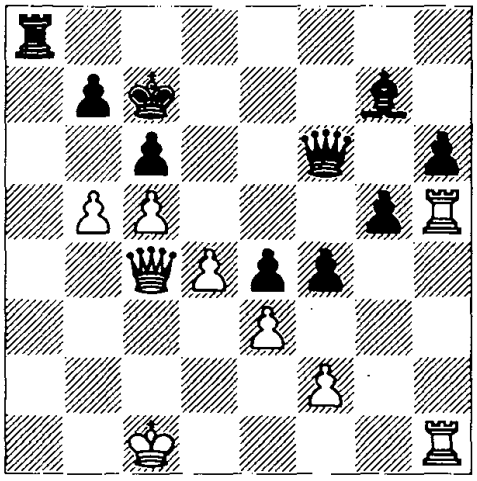
White to play

97
W



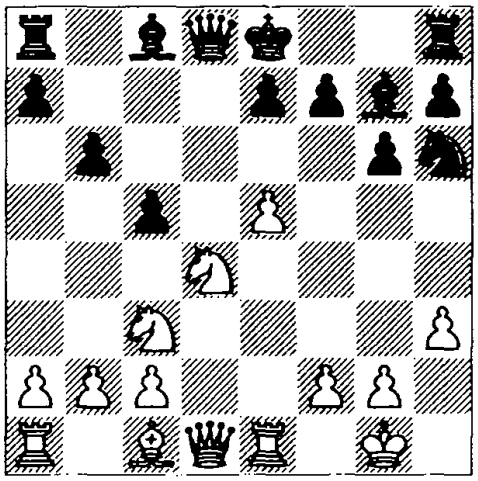
White to play

98
W



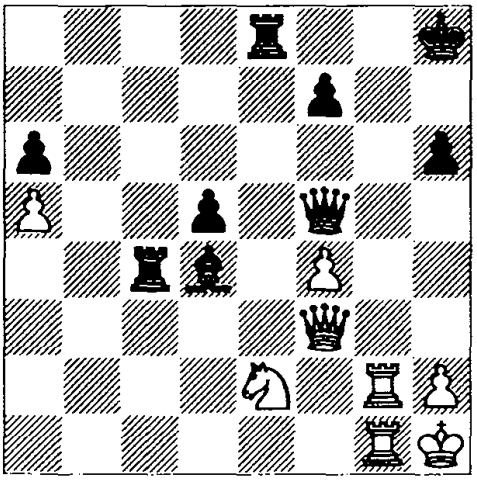
White to play

99
W



White to play

100
W



White to play

Solutions

Solutions for Part 1 Exercises

1)

Zhang Zhong – Wang Yaoyao

Jinan 2005

One way to start is 34 ♖g1 h6 35 ♖xg7+ ♔xg7, and now the following:

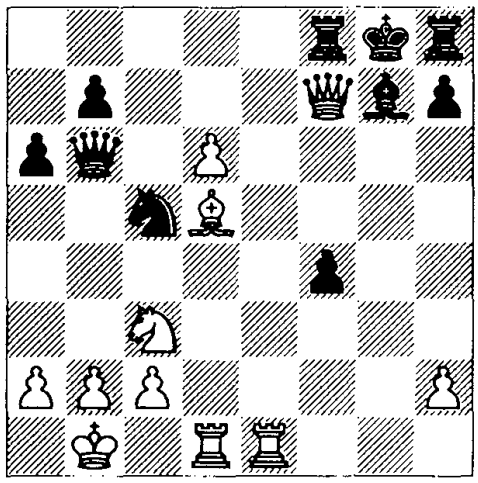
a) 36 ♖g1+ ♔h7 37 ♗e4+ (or 37 ♗xf7 ♕d8 38 ♗g8#) 37...♘xe4 38 ♕xe4+ f5 39 ♕e7+ ♖f7 40 ♕xf7#.

b) 36 ♕e5+ f6 37 ♖g1+ ♔h7 38 ♕f5#.

The most spectacular and effective method was demonstrated in the game:

34 ♕xf7+! *(D)*

B



1-0

34...♖xf7 35 ♖e8+ ♗f8 36 ♖g1#.

2)

V. Mikenas – Bronstein

USSR Ch, Tallinn 1965

Another warm-up, but a bit more difficult. White's position seems solid, and his only possible weakness, his bank rank, appears adequately covered: 24...♕e1+ 25 ♕f1. But only one move was needed in order to make everything clear:

24...♖xa3!! 0-1

The main line is 25 bxa3 ♕xa1+ 26 ♖b1 ♖e1+.

3)

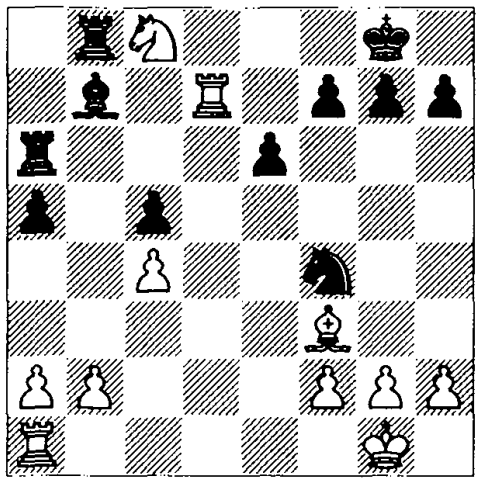
Mahesh Chandran – Vavrak

Dallas 2004

This quiet-looking position also ended after just one move – but what a move!

25 ♘c8!! *(D)*

B



1-0

After this everything is clear: 25...♖xc8 (or 25...♗xc8 26 ♖d8#) 26 ♗xb7.

4)

Adams – Kasimdzhanov

FIDE World Ch rapid (game 7), Tripoli 2004

56 ♗xe5

This is White's tactical trick, but it does not work!

56...f3+ 57 ♔xf3 ♔xe5

White loses a piece.

58 ♔g4 ♔f6 59 f4 ♘f2+ 60 ♔g3 ♘d3 0-1

5)

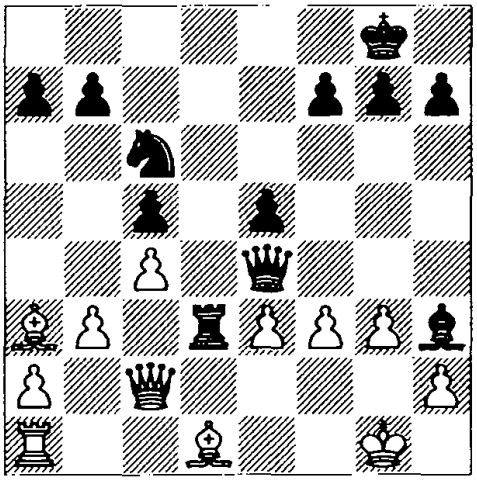
Averbakh – Kholmov

USSR Ch, Riga 1970

Black's task turns out to be fairly simple:

20...♕e4 21 f3 *(D)*

If 21 f4 White is mated: 21...♖xd1+ 22 ♕xd1 ♕xe3+ 23 ♔h1 ♕e4+ 24 ♔g1 ♕g2#.



B

21...♖xd1+! 0-1

22 ♕xd1 ♕xe3+ 23 ♔h1 ♕f2.

The name of Ratmir Kholmov was once very well known to chess lovers. In his best years, he was a tremendously strong player, and a superb tactician.

6)

Aronian – Šolak

Moscow 2005

White wins quickly and easily, by exploiting the tactical nuances of the position:

19 hxg5 hxg5 20 g4! ♘e6 21 ♕d5! ♕xd5 22 exd5 1-0

7)

Carlsen – Nikolić

Wijk aan Zee 2005

The black king's position looks very suspect and it is not surprising that his opponent has a strong blow, which is both simple and obvious.

20 ♘g5+! fxg5 21 ♕f3+ ♔g8 22 ♖xe6 1-0

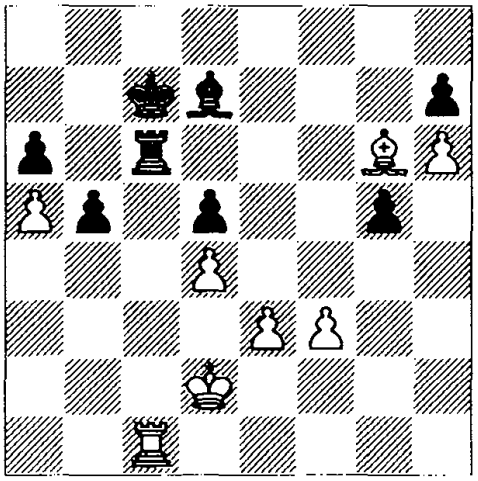
The game is decided immediately. Black resigned because of 22...♕f7 23 ♗f5!! g6 (also losing are 23...h6 24 ♖xe8+ ♕xe8 25 ♕xd5+ ♕f7 26 ♗e6 and 23...♘c4 24 ♖xe8+ ♕xe8 25 ♗e6+) 24 ♖xe8+ ♕xe8 25 ♗e6+ ♔g7 26 ♗b2+ d4 27 ♖xd4. These variations were pointed out by Maxim Notkin.

8)

Ehlvest – Bluvshtein

New York 2003

41 ♗xg6! fxg5 42 ♖c1! *(D)*



B

This move is the whole point. The exchange of Black's only active piece, in full accordance with basic strategic principles, leaves him helpless.

1-0

9)

Harikrishna – Dreev

Olympiad, Calvia 2004

Black's previous move, 26...♕e7-d6, was a blunder, which White could have refuted by 27 ♖xh2! ♕xh2 28 ♗f4! and the game is over. Instead, there followed:

27 f4? ♗g1

Black has deprived his opponent of the tactical motif and eventually won the game. Not for nothing did Petrosian say that "in chess, everything is decided by tactics".

10)

Carlsen – Nijboer

Wijk aan Zee 2005

Black decided the game with a few forceful moves.

36...♖fc8!

This is much stronger than 36...♖f1+!? 37 ♘xf1 ♕xf1+ 38 ♖e1.

37 ♖xe7

Losing immediately, but there is no way to save the game. After the more stubborn 37 ♖d4 ♖c1+ 38 ♕xc1 ♖xc1+ 39 ♔xc1 Black wins by 39...♕c5+ 40 ♖c4 ♕xe3+.

37...♕d3+! 0-1

11)

Gelfand – Wolff

New York Open 1989

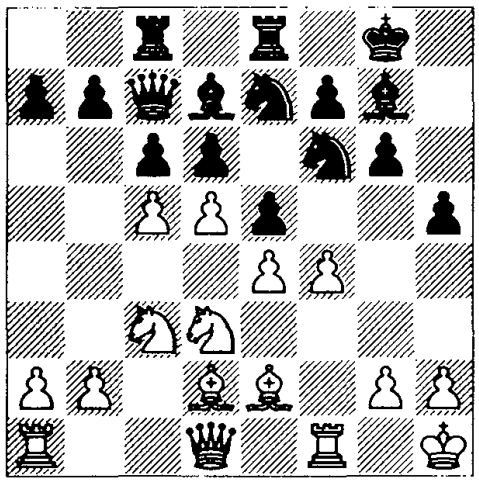
Black has a very bad King's Indian structure. His knight on c7 is particularly badly placed. A series of simple blows decides the game in White's favour.

16 c5! ♕c7

Not 16...dxc5 17 d6.

17 f4! *(D)*

B



17...♘g4

He also loses after both 17...cxd5 18 cxd6 and 17...dxc5 18 d6!.

18 h3 cxd5

A piece sacrifice born of necessity, since 18...♘h6 19 cxd6 ♕xd6 20 fxe5 would be even worse. The other version of the sacrifice, 18...exf4 19 hxg4 g5 20 e5! ♘xd5 21 exd6, is no better.

19 hxg4 hxg4 20 fxe5

and White won on move 36.

12)

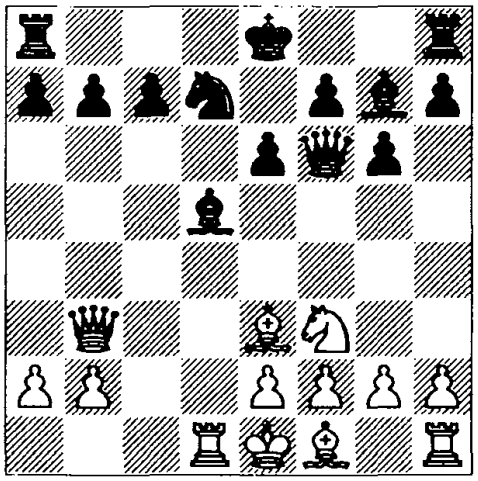
Korchnoi – Rowson

Port Erin 2004

The middlegame has not even been reached, and already White has a combinative blow which clarifies the position in his favour:

12 d5! ♘xd5 13 ♘xd5 ♗xd5 *(D)*

W



14 ♖xd5! exd5 15 ♗d4 ♕f5

The variation 15...♕xd4?! 16 ♘xd4 ♗xd4 17 ♕xd5 ♗xb2 18 ♕e4+ is obviously in White's favour.

16 ♗xg7 ♖g8 17 ♗c3 ♕b1+ 18 ♕d1 ♕xa2 19 e3 0-0-0 20 ♗e2 ♘c5 21 0-0 ♘e4 22 ♕c2! ♖d6 23 ♗d4

This position has arisen more or less by force. How should one assess it? The superiority of two pieces against a rook is most pronounced in the middlegame, since in this phase, the number of pawns is less important than the number of pieces. In other words, two pieces can attack a target twice, and the rook can only defend it once. The combination begun by White on move 12 has therefore led to a position where material is approximately level, but which is in White's favour. He went on to score a well-deserved victory in 49 moves.

13)

Volkov – Khalifman

Russian Team Ch, Sochi 2005

This situation looks particularly sharp. However, good tactical vision (there is such a term

in chess) enables White to uncover a typical combinative motif hidden in the position:

27 ♘c6! ♖e8

Any other reply loses material.

28 ♘e7+! 1-0

Black resigned in view of the variation 28...♕xe7 29 ♕xc8 ♖xc8 30 ♖xc8+ ♗f8 31 ♗h6.

14)

Capablanca – Janowski

New York 1918

The diagram position is unquestionably winning for White, but it always pays not to relax and to play accurately right up to the very end of the game. Such a habit enables the player to avoid unnecessary problems and disappointments.

30 ♖g7! 1-0

The main line is 30...♔xg7 31 ♕g5+ ♔h8 32 ♖xd8 ♖xd8 33 ♕f6#.

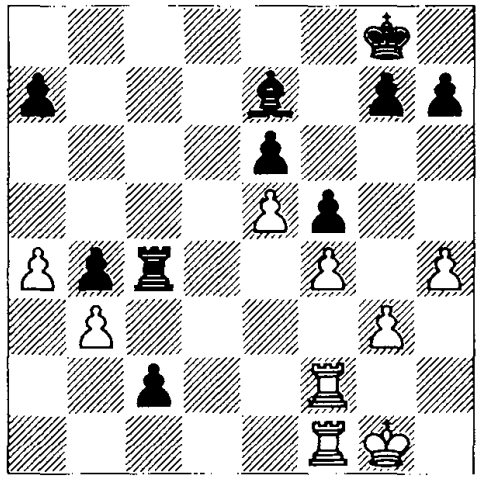
15)

Yurgis – Botvinnik

Leningrad 1931

34...♖c4!! *(D)*

34...♖d3? 35 ♔g2 ♖xb3 36 ♖xc2 is much better for White; 34...♗c5?! 35 ♖xc2! ♖c4+ 36 ♖cf2 ♖c3 37 ♔g2 ♗xf2 38 ♖xf2 ♖xb3 (38...♔f7 39 ♖d2 ♔e7 40 ♖d6 ♖xb3 41 ♖a6 ♖d3 42 ♖xa7+ ♖d7 43 ♖a8 ♖b7 44 a5 b3 45 a6 =) 39 ♖d2 with enough counterplay for equality.



W

35 bxc4

35 ♖c1 ♗c5 36 ♔g2 ♗xf2 37 ♔xf2 ♖c3 also wins for Black.

35...♗c5 36 ♔g2 ♗xf2 37 ♔xf2 b3 0-1

16)

Vaganian – Sargisian

Moscow 2005

In this example, Black demonstrates precise calculation, carrying out a simple but striking attack, based on combinative motifs:

35...♕h1+! 36 ♔f2 ♖xe5! 37 ♖xe5 g1♕+ 38 ♖xg1 ♖xf4+ 39 ♔e3 ♕f3+ 40 ♔d2 ♕c3+ 0-1

17)

Petrosian – Kholmov

Moscow 1947

Black must be careful in realizing his advantage. The greedy 67...♕xa6? is punished by 68 ♕d7+ ♔f6 69 ♕d8+ ♔g7 70 ♕e7+ with a draw. The solution is as follows:

67...g5+! 68 ♕xg5

Other replies lose more easily: 68 ♔xf5 ♕f3+ 69 ♔xg5 ♕g4+ or 68 ♔xg5 ♕g3+ 69 ♔xf5 ♕g4#. But even now, Black finds a forcing path to victory.

68...♕c1+! 69 ♔xf5 ♕c2+! 70 ♔f4 ♕xc4+ 71 ♔f5 ♕d3+! 72 ♔f4 ♕xa6 0-1

18)

Alekhine – Euwe

World Ch match (game 12), Amsterdam 1937

With his last move, 24...♖d8-c8!, Black offered the exchange of rooks. Now after 25 ♖xc8+ ♗xc8 26 ♔e3 ♔f8 27 ♔e4 ♔e7 the bishop ending would be difficult for White in view of Black's potential outside passed pawn on the queenside. Salvation instead comes in the rook ending, thanks to a tactical point:

25 ♖d1! ♖c3 26 d5! ½-½

A draw arises by force after 26...♖xb3 (the same result comes from 26...♗b5 27 d6 ♗d7 28 ♗a4!, while after 26...♔f8 27 d6 ♔e8? 28 ♗xf7+! ♔d7 29 ♗e6+ White even wins) 27 d6 ♗b5 28 d7 ♗xd7 29 ♖xd7.

19)

I. Rabinovich – Botvinnik

USSR Ch, Moscow 1927

The first move here is perfectly obvious, because once the bishop is gone, Black's pieces can approach the white king. What is more interesting is the way the subsequent play develops almost by force; the consequences of the sacrifice had to calculated exactly.

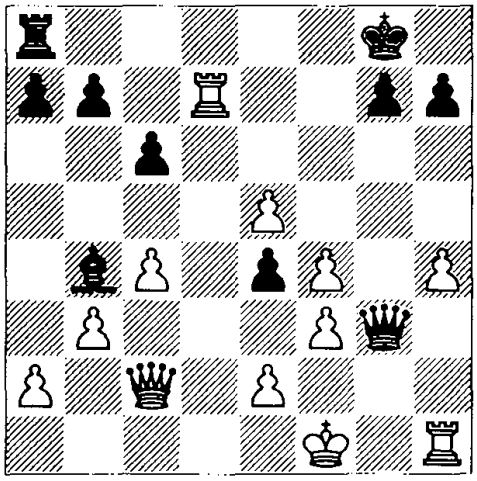
21...♖xf4! 22 gxf4 ♕g3 23 ♘xe4

This move is almost forced. He must defend against the threat of 23...♗c5 and the variation 23 cxd5 ♗h3+ 24 ♖xh3 ♕xh3+ 25 ♔f2 ♗c5+ leads to immediate defeat.

23...dxe4 24 ♖xd7 *(D)*

Also bad is 24 ♕xe4 ♗c5.

B



24...♗c5!

It turns out that Black has no other choice. The 'mating' 24...e3?? loses to 25 ♖xg7+!.

25 e3 ♕xf3+ 26 ♕f2 ♕xh1+ 27 ♔e2 ♕h3

Black has a winning position and duly won on move 42.

20)

Short – Gelfand

Tilburg 1990

Black's positional achievements are obvious, but White has real counterchances. Black, however, wins by force, thanks to the tactical nuances of the position.

38...♖e2+ 39 ♔h1 ♗f2! 40 ♔g2

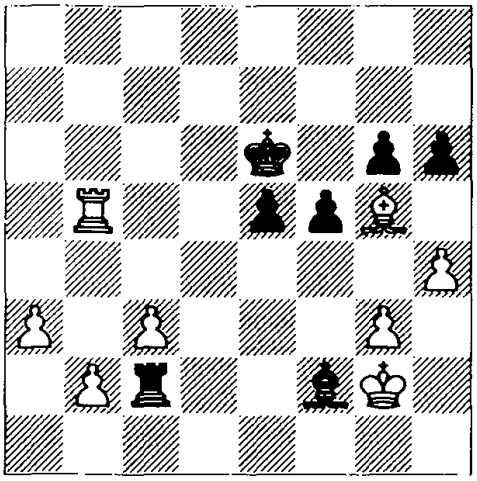
40 ♖xb5 loses: 40...♗xg3 41 a4 f4.

40...♖c2 41 ♖xb5

41 ♔h3 ♗g1 42 g4 f4 soon leads to mate, while White also loses quickly after 41 ♔f1 ♗xg3 42 ♖xb5 f4.

41...h6! *(D)*

W



This move, pulling the carpet from under the feet of the white bishop, is the point of the combination.

42 ♗xh6 ♗e3+ 43 ♔f1 ♗xh6 44 h5

44 ♖b6+ ♔d5 45 h5 ♔e4 –+.

44...♗e3 45 hxg6 ♖f2+ 46 ♔e1 ♖g2 47 g7 ♖xg3 48 ♔e2 f4 49 ♖b8 ♖xg7 50 ♔d3 ♖f7!

With the help of another combination, Black wins by force.

51 ♔e4 f3 52 ♔xe3 f2 53 ♖b6+ ♔d5

The only move to confirm the correctness of Black's combination.

0-1

21)

Keres – Lilienthal

Absolute USSR Ch, Leningrad/Moscow 1941

18 d6!

From the viewpoint of chess logic, this breakthrough has to be considered essential. White's advantage lies not so much in his extra pawn, but in his extra space, superior development and two bishops. But despite all this, Black has the more compact pawn-structure and White only needs to dally a moment, making some sort of consolidating or developing move, and Black will secure good play. This

can be seen in variations such as 18 ♗d4 ♘dc5 19 ♗c4 ♗f5 and 18 ♕h5 ♘dc5 19 ♗c4 ♕d6. In both cases, White has only a small advantage.

18...♘xe5?

Black loses his head. 18...♘xd6 offers more stubborn resistance. Then after 19 g6 ♔h8! 20 ♘xf7+ ♘xf7 21 gxf7 White has an undoubted advantage, but the fight would go on.

19 fxe5 1-0

At first sight, Black's resignation looks premature, but the variation 19...cxd6 20 ♕d5 ♘xc3 21 ♕c4 shows that he was right.

22)

Pohla – Yukhtman

USSR Team Ch, Moscow 1966

White has been outplayed positionally and is trying to hang on with passive defence. However, Black finds a forcing way to break through:

30...♘xd3! 31 ♕xd3

He must not allow the black queen in: 31 cxd3 ♕c2.

31...♖c8 32 ♖ac1

Now follows the planned decisive blow:

32...♗c4! 33 bxc4 bxc4 34 ♕e2

34 ♘xc4 ♗xc1.

34...c3 35 ♖b1 cxd2 0-1

23)

Osnos – Yukhtman

Volgograd 1969

Here too Black needs to find a more convincing way to realize his obvious advantage. It is easy to see that this means something other than 33...♘xf4 34 ♗xf4 ♖xf4 35 ♖fxf4 ♖xf4 (White also obtains counterplay after 35...♗xf4 36 ♗c2) 36 ♖xf4 ♗xf4 37 ♗c2 ♕f7 38 ♕e6!? and it is not clear if this ending is winning.

33...♗xf4!

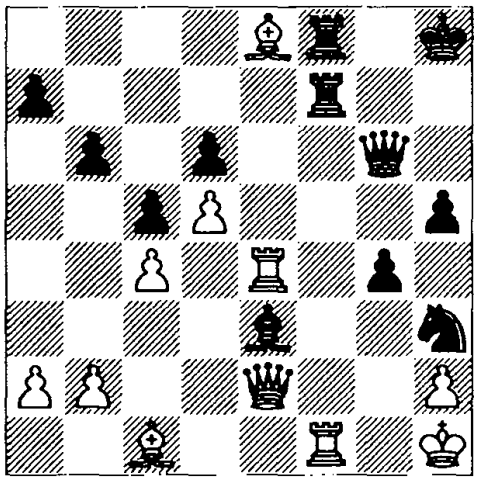
In the game, White went down the main line:

34 ♗e8?

He is also lost after 34 ♗xf4 ♘xf4 –+. The best chance was 34 ♖e8! but here too after 34...♕g7 35 ♕e6 ♖xe8 36 ♕xe8+ ♕f8 Black retains a significant advantage. In the game, Black now played his ace:

34...♗e3!! *(D)*

W



After this spectacular blow, White cannot avoid decisive material losses.

0-1

24)

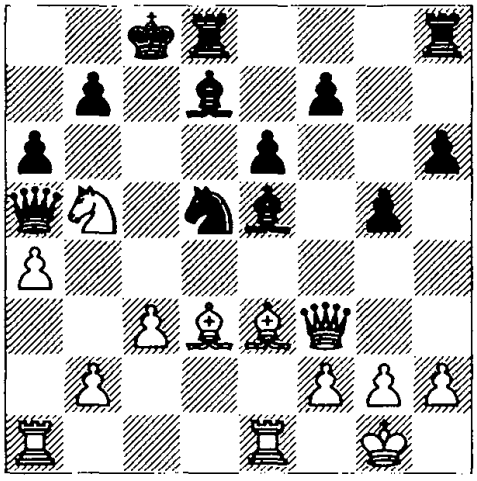
Kramnik – Ponomariov

Sofia 2005

On the preceding move, the white knight advanced beyond the demarcation zone, and was immediately attacked by the pawn. Should it humbly retreat?

20 c3! *(D)*

B



Certainly not! After this 'quiet' pawn move, it becomes clear that the knight is untouchable. The threat is b4. Events take on a forcing character.

20...♘xe3

Any reader of this book should be able to find White's 20th move, and the variations

which show that taking the knight is bad. They are as follows: 20...♗xb5 21 axb5 ♕c7 22 bxa6 (22 g3!? +—) 22...♗xh2+ 23 ♔h1 and 20...axb5 21 axb5 ♗xh2+ 22 ♔h1. There is no need to calculate any further, because it is clear that White seizes the initiative.

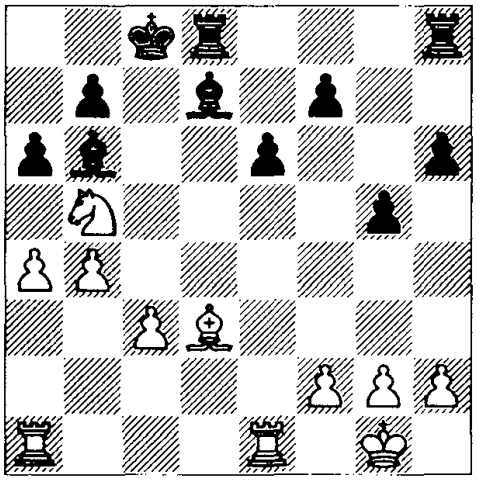
21 ♕xe3?!

This decision was criticized by Igor Zaitsev, a great analyst who worked for many years with Karpov. He demonstrated that White should have played 21 b4!. Then after 21...♕b6 22 a5 there are the variations 22...♗c6 23 ♕h5, 22...♕xb5 23 ♗xb5 ♗xb5 24 ♕xe3 +— and 22...g4 23 ♕e2 ♗xb5 24 axb6 ♖xd3 25 fxe3 ♗xc3 26 ♖ac1 ♔b8 27 ♖ed1 +—. In all cases, White has a decisive advantage.

21...♗c7

Not 21...♗f4 22 ♕c5+ ♗c7 23 ♘d6+. Taking on b5 is no better than it was on the previous move.

22 b4 ♕b6 23 ♕xb6 ♗xb6 *(D)*



24 ♘d6+ ♔b8

According to Zaitsev, stronger was 24...♔c7! 25 ♘xf7 ♖hf8 26 ♘xd8 ♗xf2+ 27 ♔h1 ♗xe1 28 ♘xe6+ ♗xe6 29 ♖xe1, and now Black has the important resource 29...♖d8! with real prospects of saving the game.

In the remainder of the game, Kramnik demonstrated his usual excellent endgame technique and won on move 60.

25)

Geller – Fischer

Havana 1965

White realized his advantage in forcing style, including a tactical blow:

53 ♗f3! ♗xf3

Retreating the bishop does not save the game either: 53...♗a6 54 ♕e5+! ♕xe5 55 fxe5+ ♔d7 56 e6+.

54 ♕e5+! ♕xe5 55 fxe5+ ♔xe5

55...♔c6 56 gxf3 ♔xb6 57 f4!.

56 gxf3 ♔d6 57 f4!

The key move of the whole operation. The f-pawn queens.

1-0

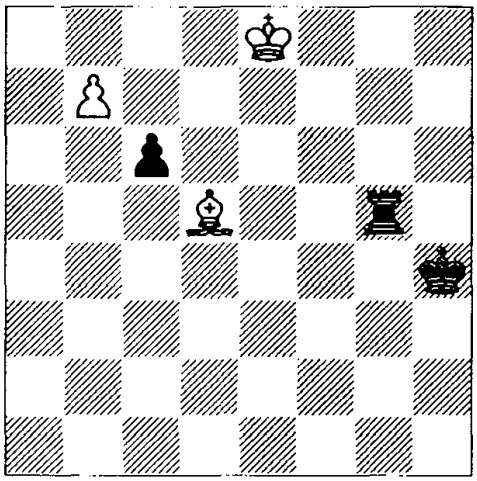
26)

L. Prokeš

Šachové Studie, 1941

Routine methods do not win: 1 ♔f7? ♖b5; 1 b8♕? ♖g8+; 1 ♗xc6? ♖g8+ 2 ♔f7 ♖b8. A revolution is needed.

1 ♗d5! *(D)*



The logic of this move is clear from the preceding variations: White closes the 5th rank and takes control of g8.

1...♖h5

1...cxd5 loses to 2 ♔f7.

2 ♔f8! cxd5

Forced.

3 ♔g7

White wins.

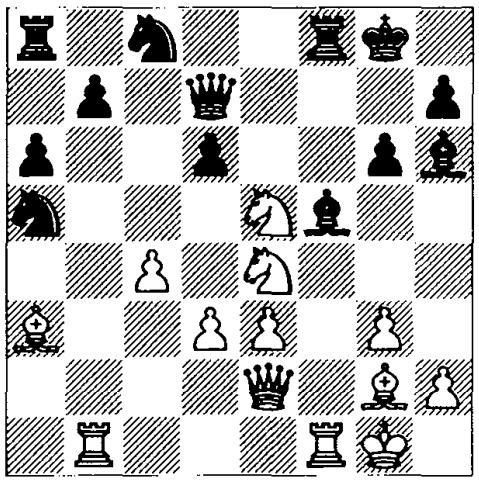
27)

Gelfand – Vladimirov

Moscow GMA 1990

White's activity is converted into a win by tactical means:

21 ♘xe5! *(D)*



21...♕e8

At the first stage, White only needed to calculate the line 21...dxe5 22 ♗xf8 ♗xe4 (22...♔xf8 23 g4) 23 ♗xh6 and wait for his opponent's reaction. Now, it turns out that Black has serious problems in every variation. 21...♕e6 loses to 22 ♘xd6! ♘e7 (22...♕xe5 23 ♘xf5 ♖xf5 24 ♗d5+ +–) 23 ♘xf5 ♖xf5 24 d4, and even after the strongest line 21...♕e7 22 ♘g4 ♗g7 23 ♗b2! White retains a serious advantage. The game ended:

22 ♘xd6! ♕xe5 23 ♘xf5 1-0

28)

Capablanca – Randolph

New York 1912

White wins with a slightly more complicated version of the double attack:

27 ♕g4+! ♖g5 28 ♖f6+ ♔h7 29 ♖f7+ ♔h8

29...♔g8 loses to 30 ♖g7+.

30 ♖f8+ ♘g8 31 ♕xg5 hxg5 32 ♖xg8+ 1-0

29)

J. Polgar – Anand

Wijk aan Zee 1998

A repeat of the previous example:

56 ♖h8+! 1-0

56...♔g7 57 ♕d4+ ♗f6 (57...♖f6 58 ♖h7+!) 58 ♕xf6+! ♖xf6 59 ♖h7+ +–.

30)

Haznedaroglu – Golubev

European Clubs Cup, Cesme 2004

Black has a large and obvious positional advantage. Only if he cannot find anything better should he settle for 27...♘d2+?! 28 ♗xd2 ♕xe7 29 ♗xb4, when White can continue to resist. The motif for the combination is clear, and a small change in the move-order solves all the problems:

27...♕xe7! 28 ♗xe7 ♘d2+ 29 ♔a1 a3 30 c3 bxc3 31 bxc3 ♖ab8 0-1

Mate is unavoidable.

31)

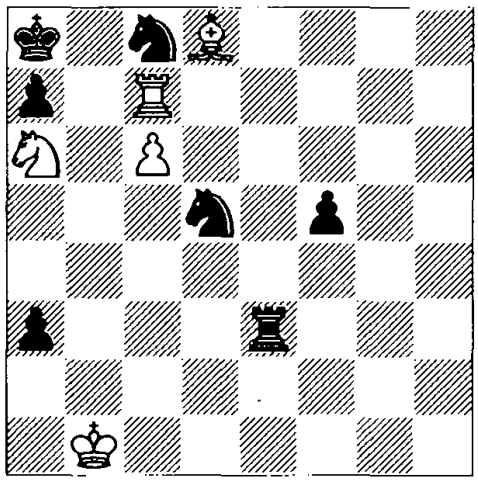
Hector – Nakamura

Malmö 2005

Notwithstanding the paucity of material, White's pieces are well coordinated and Black must play precisely to meet the threats. For example, after the natural 54...f4 there follows 55 c6 f3 (55...♖b3+ 56 ♔a2 ♖b6 57 ♗xe7 leads to a draw, as does 55...♘xc6 56 ♖xc6 ♔b7 57 ♖f6 =) 56 ♖xc8+ ♘xc8 57 ♘c7+ ♔b8 58 ♘a6+ with perpetual check. Instead, Black has a counterblow:

54...♘d5! 55 c6!? *(D)*

55 ♖xc8+ loses immediately: 55...♔b7 56 ♖b8+ ♔xa6.



55...♘d6!

It is precisely this resource which Black is relying on. Not 55...♘cb6?? 56 ♖b7, while

55...♘xc7? 56 ♘xc7+ ♔b8 57 ♘a6+ only leads to a draw. Now, almost from nothing, it is Black who achieves excellent piece coordination.

56 ♖d7 ♖b3+ 57 ♔c2

He loses quickly after 57 ♔a2 ♖b2+ 58 ♔a1 ♘c3 59 ♘c7+ ♔b8 60 ♘a6+ ♔c8.

57...♖c3+ 58 ♔b1 ♖xc6 59 ♘c7+ ♘xc7 60 ♗xc7 ♘b5 61 ♗e5 ♖e6 62 ♖d5 a6 63 ♖c5 ♔b7 64 ♗f4 ♖e1+ 65 ♔a2 ♖e2+ 66 ♔a1 ♔b6 67 ♖c8 ♘d4 68 ♖c3 ♔b5 69 ♗d6

It was time to resign, but White remains stubborn and so gives his opponent another chance to show his tactical mastery and excellent calculation:

69...♘c2+! 70 ♔b1

After 70 ♔a2 Black wins by 70...f4! 71 ♗xf4 ♔b4.

70...♖e1+! 71 ♔xc2 a2 0-1

32)

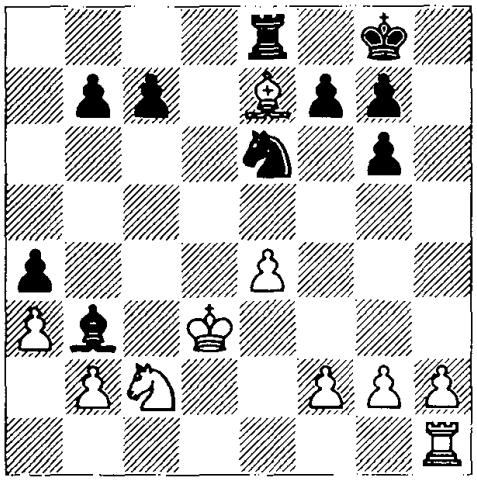
Van Wely – Svidler

Amber rapid, Monte Carlo 2005

Black finds a forcing way to realize his advantage.

31...♘xd3! 32 ♔xd3 ♖e8 *(D)*

W



33 ♗b4

White cannot allow a check on c5: 33 ♗h4 ♘c5+ 34 ♔d2 (34 ♔d4 b6! –+) 34...♘xe4+ 35 ♔c1 ♘xf2! –+.

33...c5 34 ♗d2

34 ♗a5 only delays things for one move – 34...♖a8!.

34...♖d8+ 35 ♔c3 ♘c7! 0-1

This final move is the tactical blow on which the whole operation was based.

33)

Psakhis – Porper

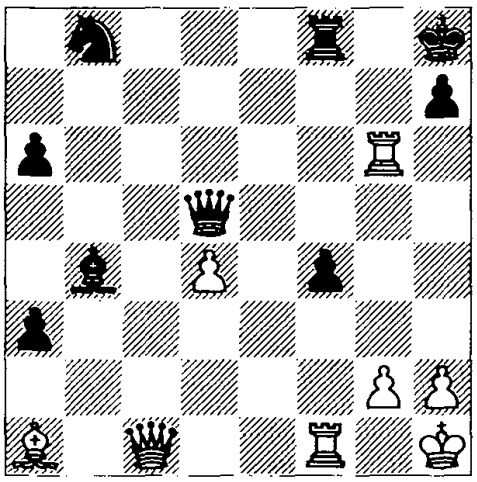
Israeli Ch, Jerusalem 1996

At first, the position looks complicated and tense, but a series of tactical blows decides it in White's favour.

42 ♖xg6! f4 *(D)*

Taking the rook loses quickly: 42...hxg6 43 ♕h6+ ♔g8 44 ♕xg6+ ♔h8 45 ♖f3. 42...♖g8 is also bad: 43 ♖xg8+ ♔xg8 44 ♕g5+ ♔h8 45 ♖xf5. If 42...♘d7, White has two good lines, one starting with 43 ♖g5 and the other with 43 ♕h6. With the text-move, Black prevents both of these, but now White strikes on the other side.

W



43 ♕c5! ♖d8 44 ♖g5! ♗xc5

This move is forced.

45 dxc5+ ♕d4

The rest is a matter of fairly simple technique.

46 ♖f5! ♘c6

Or 46...♕b2 47 ♖5xf4! ♘c6 48 ♗xb2+ axb2 49 ♖4f2 ♖b8 50 ♖b1.

47 ♖5xf4 ♕xa1 48 ♖xa1 ♖d5 49 h3 ♖xc5 50 ♖xa3 a5 51 ♖f7 1-0

34)

Evseev – Khasangatin

Koszalin 1999

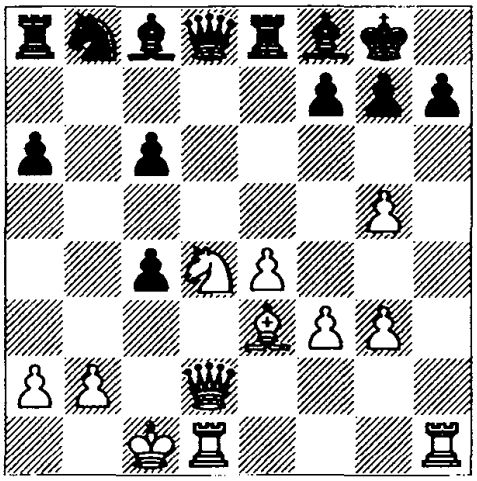
We have already seen several situations in which realizing a clear and apparently large positional advantage requires great accuracy and energy.

16 ♗xc4!

Much more convincing than 16 ♕h2 h6 17 gxh6 g6 18 h7+ ♔h8.

16...dxc4 *(D)*

W



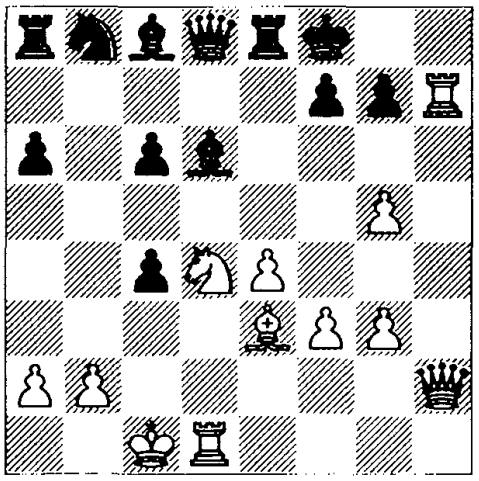
There is no point in letting such a strong bishop stay alive. But now White continues his combination.

17 ♖xh7! ♗d6

Taking the rook loses at once: 17...♔xh7 18 ♕h2+ ♔g6 (18...♔g8 19 ♖h1 f5 20 g6) 19 ♖h1.

18 ♕h2 ♔f8 *(D)*

W



19 ♖xg7!

White even had a choice by this point; 19 ♘f5!? ♗xf5 20 exf5 is also perfectly adequate.

19...♔xg7 20 ♘f5+ ♗xf5 21 ♗d4+ ♔f8

21...f6 22 ♗xf6+ ♕xf6 23 gxf6+ is also hopeless for Black.

22 ♗f6 1-0

35)

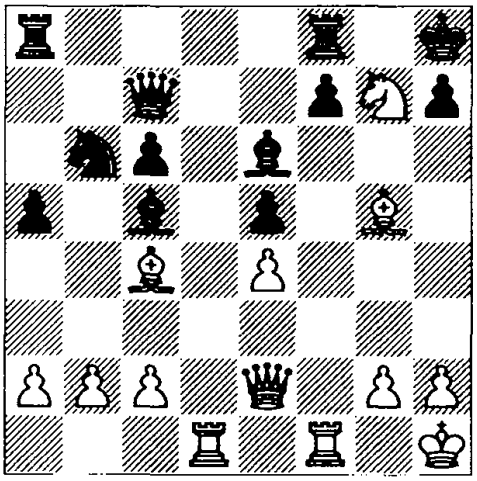
Stein – Portisch

Interzonal tournament, Stockholm 1962

White has a lead in development and an obvious superiority in force on the kingside, but these are short-term factors. If White hesitates, these advantages will fade away. Meanwhile, Black is attacking the c4-bishop. By concentrating on maintaining the initiative at all costs, one finds the following solution:

19 ♘xg7!! *(D)*

B



19...♗xc4

Black has no saving line. Taking the knight leads to a quick mate: 19...♔xg7 20 ♗f6+ ♔g8 (20...♔g6 21 ♗xe6 +–) 21 ♕d2 (also winning is 21 ♗xe6), while 19...♘xc4 loses to 20 ♗f6 ♗e7 21 ♘xe6+.

20 ♗f6

The point.

20...♗e7

20...♘d7 21 ♖xd7.

21 ♕f3 1-0

Black resigned in view of the continuation 21...♔g8 22 ♘h5.

36)

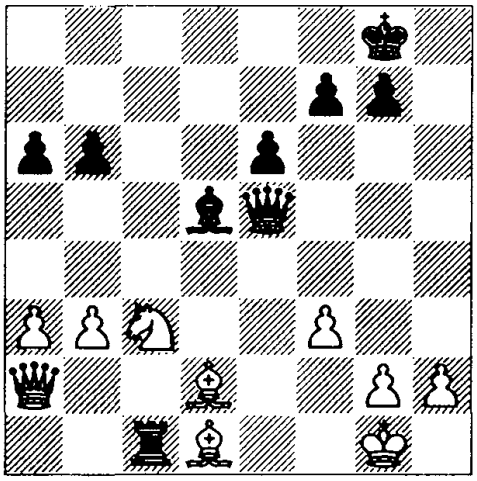
Sandipan – Nisipeanu

Pune 2004

In this position, Black managed to convert his initiative by force into victory. But in order to do this, he had not only to see the basic idea of the combination, but also to calculate the exact order of moves. The start is obvious enough:

30...♖c1! 31 ♘c3 *(D)*

B



Now the really interesting part begins. Firstly, the line 31...♖xc3 32 ♗xc3 ♕xc3 33 ♔f1 brings Black less than he would like. Secondly, the natural idea is to sacrifice on b3, but it transpires that this is not so simple. After the immediate 31...♗xb3 32 ♕b2! ♕d4+ 33 ♔h1! ♕c4 (33...♖xd1+?? 34 ♘xd1 +–; 33...♕f2 34 h3 ♖xd1+ 35 ♘xd1 ♕f1+ 36 ♔h2 ♕xd1 ∓) 34 h3 ♖xd1+ 35 ♘xd1 ♕f1+ Black's advantage is not so great. The key is the position of the white king. Therefore, Black must start with...

31...♕d4+! 32 ♔f1

It turns out that in this move-order, 32 ♔h1 loses to 32...♕xc3!. But now the main idea works:

32...♗xb3! 33 ♕xb3

33 ♕b2 ♗c4+.

33...♕xd2 34 ♕xb6 ♖xc3 0-1

37)

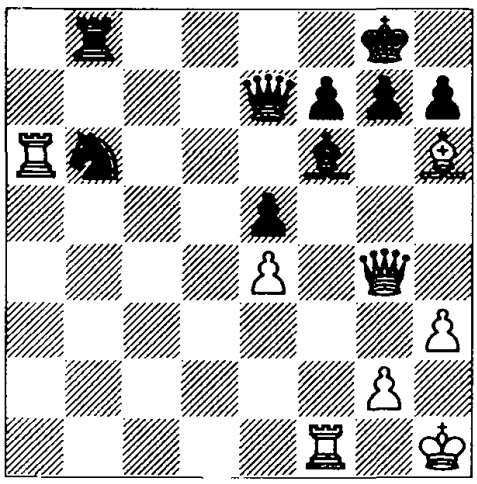
Haba – Lechtynsky

Czech Ch, Prague 2005

Black's position appears solid, and it would be extremely difficult to realize White's small material advantage by purely technical means. It turns out that the tactical features of the position are the decisive factor:

28 ♕g4! *(D)*

B



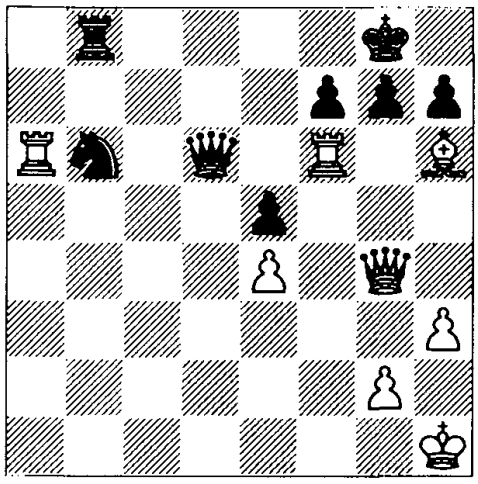
A very strong move, not easy to find. It is based on the fact that the black pieces are overloaded with each other's defence.

28...♕d6

Black has no escape from the various tactical blows: 28...♔f8 29 ♗xg7+ ♗xg7 30 ♖xb6 ♖xb6 31 ♕c8+ ♕e8 32 ♕c5+ +– or 28...g6 29 ♖xb6! ♖xb6 30 ♖xf6!. Even after the more resilient 28...♕e6!? 29 ♕xe6 fxe6 30 ♖b1 Black's position cannot be held.

29 ♖xf6! *(D)*

B



1-0

On 29...♕xf6 follows 30 ♖xb6! ♖xb6 (or 30...♕xb6 31 ♕xg7#) 31 ♕c8+.

38)

Tkachev – W. Watson

London (Lloyds Bank) 1993

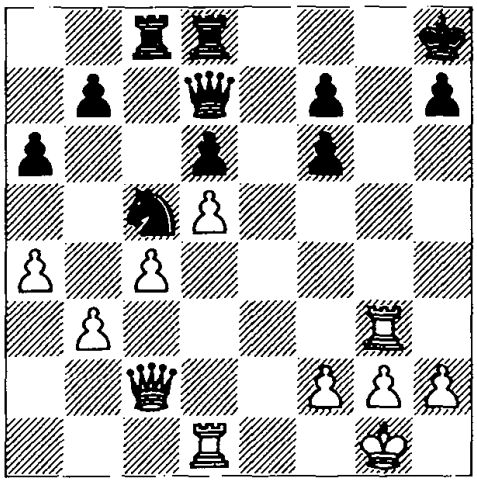
Exploiting the fact that his opponent's pieces are a long way from the kingside, White lands a tactical blow which is typical for the Sicilian. The difficulty lies in justifying the idea tactically.

20 ♘d5!! exd5

20...♗h4 is also bad in view of 21 ♖h3 exd5 22 exd5, and after the more resilient 20...e5 21 ♘xf6+ gxf6 22 ♕e2 Black will not be able to defend all of his weaknesses.

21 exd5 ♕d7 22 ♗xf6 gxf6 23 ♖g3+ ♔h8 *(D)*

W



24 ♕xh7+!!

Only this blow confirms the correctness of the knight sacrifice, and White had to see this at move 20.

24...♔xh7 25 ♖d4 1-0

39)

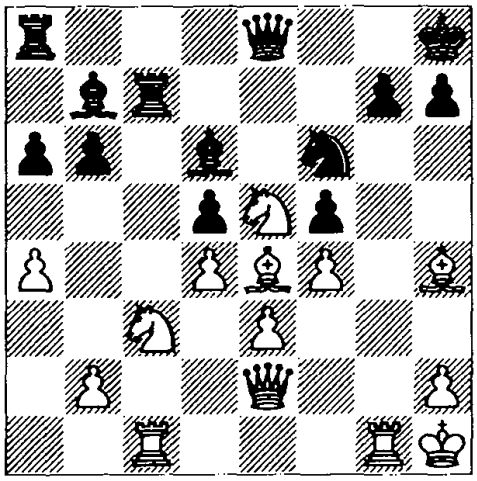
Bareev – Lautier

Enghien les Bains 2001

White's pieces are more active (compare the rooks at g1 and a8, and also the bishops on h4 and b7), but it seems he has no other advantages. Nonetheless, the position contains some hidden tactical subtleties, and by exploring these, Bareev finds a spectacular forced win. It turns out that Black's kingside dark squares are inadequately defended and the rook's position on c7 is vulnerable. All this comes together in the following complicated and beautiful combination:

21 ♗xe4! *(D)*

B



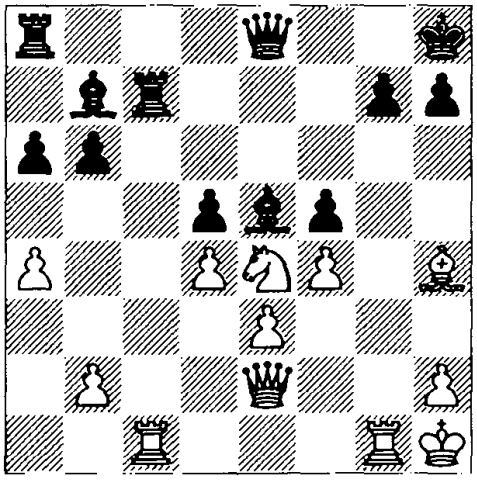
21...♘xe4

Capturing with either pawn is also bad: 21...fxe4 22 ♖xg7 ♔xg7 23 ♖g1+ ♔f8 24 ♗xf6 ♕e6 25 ♕g2 ♗xe5 26 dxe5 ♗c6 27 ♕g5 or 21...dxe4 22 ♖xg7! ♔xg7 23 ♖g1+ ♔f8 (23...♘g4 24 ♘xg4 fxg4 25 ♕xg4+ ♕g6 26 ♕e6 +–) 24 ♗xf6 ♕e6 25 ♕g2! with a very strong initiative.

22 ♘xe4 ♗xe5 *(D)*

The variation 22...fxe4 23 ♖xc7 ♗xc7 24 ♖xg7! ♗xe5 (24...♔xg7 25 ♕g4+ ♔f8 26 ♗f6 also wins for White) 25 ♖xb7 ♕c6 26 dxe5 ♕xb7 27 ♗f6+ ♔g8 28 e6 ends with a winning position for White.

W



The crowning blow is based on the theme of overloading:

23 ♘f6!! ♗xf6 24 ♖xc7 ♗xh4

On 24...♕e4+ the simplest reply is 25 ♕g2!.

25 ♖gxg7 ♕e4+ 26 ♔g1 1-0

26...♕b1+ 27 ♕f1 +–.

40)

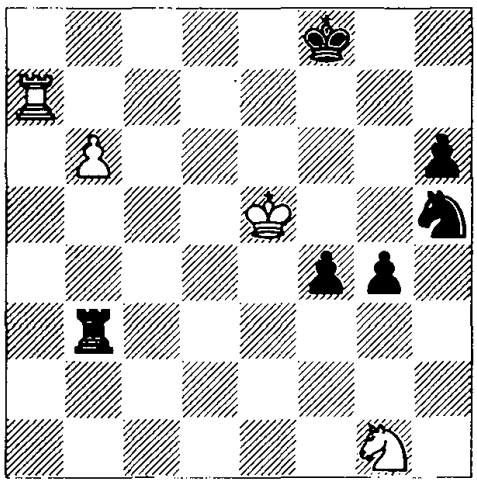
I. Rabinovich – Botvinnik

Moscow (training) 1937

The main difficulty here is not the number of lines or their complexity, but in assessing the resulting positions. Thus, after 45...♖xb6 46 ♔xf4 ♖b4+ 47 ♔g3 ♘xh5+ 48 ♔h4 ♘g7 (after 48...♘f4, 49 ♔xg4 ♘e2+ 50 ♔h5 draws and if 48...♘f6 49 ♘e2 ♖b1 50 ♘g3 ♖b2 51 ♘f5 ♖h2+ 52 ♔g3 ♖h3+ 53 ♔f4 a draw is also highly likely) 49 ♘e2 ♘f5+ 50 ♔h5 it will be very difficult for Black to win despite his two extra pawns (these variations were pointed out by Botvinnik). Similarly, in the event of 45...f3 46 ♔xf6 ♖xb6+ 47 ♔e5! f2 48 ♖a1 ♔f7 49 ♖f1 ♖f6!? 50 ♘e2 ♖e6+ 51 ♔f4 ♖xe2 52 ♔xg4 it is a draw. Black needs to see from afar an important tactical detail.

45...♘xh5!! *(D)*

W



46 b7

Now, as Botvinnik shows, White loses after 46 ♔f5 f3 47 ♖a2 ♖b4 48 ♔g6 ♘g3 (e.g., 49 ♔xh6 ♖xb6+ 50 ♔g5 ♘e4+ 51 ♔xg4 f2 52 ♖a1 fxg1♕+ 53 ♖xg1 ♖g6+).

46...f3 47 ♖a8+ ♔g7 48 b8♕ ♖xb8 49 ♖xb8 f2 50 ♖b1 *(D)*

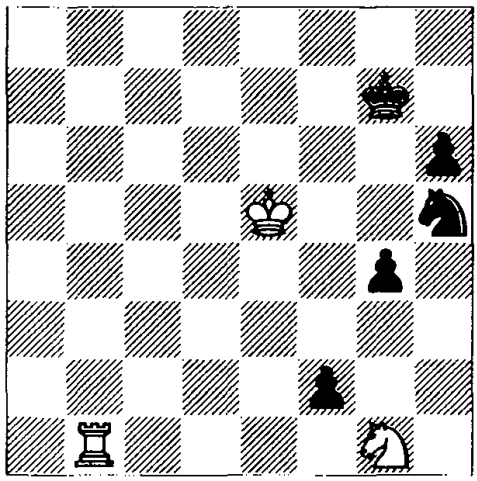
50...♘g3!

This remarkable resource, based on the double attack, had to be foreseen as far back as move 45.

51 ♔d5

The forks pursue the white king after 51 ♔f4 fxg1♕ 52 ♖xg1 ♘e2+ and 51 ♘e2 ♘xe2 52

B



♔e4 f1♕ –+. Thanks to this, the black king cannot be prevented from approaching.

51...♔g6 0-1

This example ends the section of exercises on tactics. The next section deals with the calculation of variations.

Solutions for Part 2 Exercises

41)

Fridshtein – Lutikov

USSR Team Ch, Riga 1954

This ending contains quite a well-known curiosity. After calculating the variation 60 ♖xb3 c2 61 ♖b4+ ♔d5 62 ♖b5+ ♔d6 63 ♖b6+ ♔c7, when Black queens, White resigned. But had he considered the elementary candidate move **60 ♖b4+!**, he would have drawn immediately.

42)

Gulko – Rojas Keim

Buenos Aires 2005

White wins a piece with a forcing manoeuvre.

36 ♘b6 1-0

Black resigned immediately in anticipation of 36...♖c7 37 ♘d5 ♖c8 38 ♖xc6! ♖xc6 39 ♘e7+.

43)

Polugaevsky – Comas Fabrego

Palma de Mallorca (GMA) 1989

The game was decided by a typical sacrifice, crowned with a standard combination:

19 ♘de6! 1-0

Black must lose the exchange, in view of the variation 19...fxe6 20 ♗xe6+ ♔h8 21 ♘g6+ ♔h7 22 ♘f8+ ♔h8 and now 23 ♕h7+! ♘xh7 24 ♘g6#.

44)

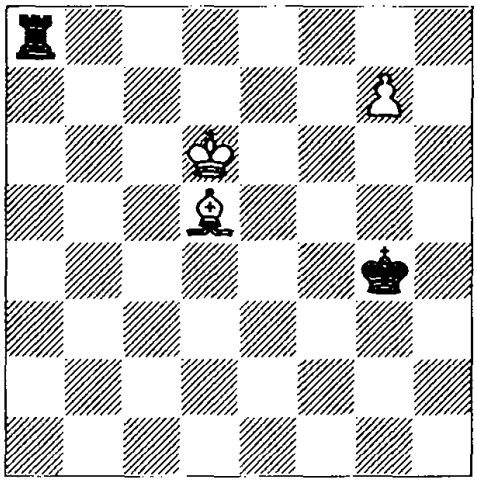
H. Mattison

Latvis, 1923

In this study, victory is again achieved simply and without resistance from the weaker side. The sole difficulty is finding the first move:

1 ♗d5! *(D)*

But not 1 ♔e7? ♔g5 2 ♗e8 ♖a7+ 3 ♗d7 ♖a8, drawing.



B

1...♖e8 2 ♔d7 ♖b8 3 ♔c7 ♖e8 4 ♗f7! ♖a8 5 ♗e6+ ♔g5 6 ♗c8 ♖a7+ 7 ♗b7

45)

After **J. Moravec**

České Slovo, 1938

The solution to this study can be found by the use of logic. Since the white king can go both left and right, Black's knight must preserve the ability to react appropriately. It follows automatically from this that he should play...

1...♘d2!

The black king is too far away, and checking 1...♘c3? immediately confirms the correctness of our logical analysis: after 2 ♔c6! ♘e2 3 d7 ♘d4+ 4 ♔d5! White wins. After the text-move, the white king must commit itself, and Black's knight will move in the opposite direction.

2 ♔c7

A draw also results from the following variations: 2 ♔e7 ♘c4 3 d7 ♘e5 =; 2 ♔c8 ♘c4 =; 2 ♔e8 ♘e4 =; 2 ♔c6 ♘c4 =; 2 ♔e6 ♘e4 =.

2...♘e4 3 d7 ♘c5

With a draw.

46)

Savon – Gligorić

Moscow (GMA) 1989

White wins simply:

68 h6! gxh6 69 gxh6 e3 70 h7 1-0

The white pawn cannot be stopped, whereas Black's falls, even after queening: 70...e2 71 ♘f4 e1♕ 72 ♘d3+.

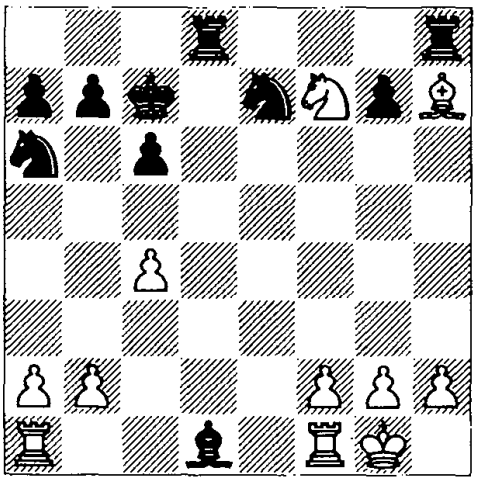
47)

Tal – Dorfman

USSR Ch, Tbilisi 1978

White has a choice of possibilities, but the undoubted favourite amongst these is a simple but effective blow by which White wins a valuable pawn:

17 ♗xh7! *(D)*



B

17...♗g4 18 ♘xh8 ♖xh8 19 ♖fe1! ♘c8 20 ♗c2! ♘b4 21 ♗e4 a5 22 f3 ♗d7 23 ♖ad1

White has a clear advantage, which he realized after 47 moves.

48)

Pantsulaia – Sutovsky

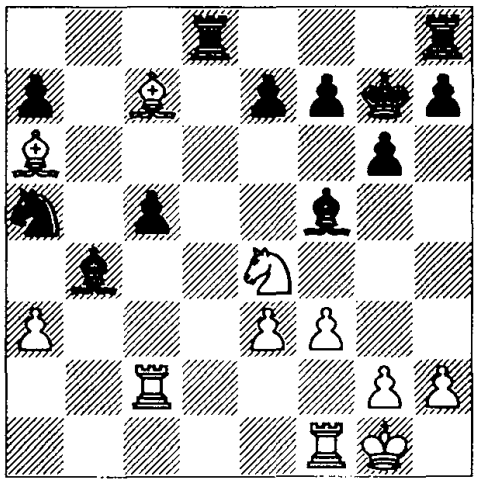
European Team Ch, Gothenburg 2005

This position is decided in a few moves by a simple blow, based on the theme of the overload:

27 a3! *(D)*

This is much stronger than the excessively direct 27 ♗xd8? ♖xd8 28 ♖a1 ♗xe4 29 fxe4 ♗a3, when the game is almost equal. The rest develops by force.

B



27...♗xe4 28 fxe4 ♗d2

Even worse is 28...♖d7 29 axb4 ♖xc7 30 bxa5.

29 ♖xd2 ♖xd2 30 ♗xa5 ♖c2 31 ♗d3 ♖a2 32 ♗c4 ♖xa3 33 ♖xf7+ ♔h6 34 ♗c7

The result is that White has an overwhelming positional advantage and wins easily:

34...♖a4 35 ♗e6 ♖xe4 36 ♗f4+ g5 37 ♗f5! gxf4 38 ♗xe4 fxe3 39 ♔f1 c4 40 ♖xe7 ♖c8 41 ♖xh7+ ♔g5 42 ♖xa7 c3 43 ♖a2 ♖c4 44 ♗d3 ♖h4 45 g3 ♖h8 46 ♖c2 ♖f8+ 47 ♔e2 1-0

49)

Timman – P. Nikolić

Belgrade 1987

White's advantage is based on his superior king position and the possibility of creating an outside passed pawn. It is just a matter of realizing these pluses accurately.

40 c5 bxc5 41 dxc5 e5

White had to foresee this continuation, and also the fact that after 42 c6? e4 43 ♔c4 ♔xc6 44 ♔d4 ♔d6 45 ♔xe4 ♔e6 the position is a draw. Meanwhile, 42 ♔c4? ♔c6 leads to a position of mutual zugzwang, so White also had to see the solution:

42 ♔b4! 1-0

White approaches the e5-pawn indirectly, avoiding the c4-square. 42...♔d7 43 ♔c3! ♔c7 (43...♔e6 44 ♔c4 +–) 44 ♔d3!. Therefore Black resigned.

50)

M. Golubev

Chess Today, 2005

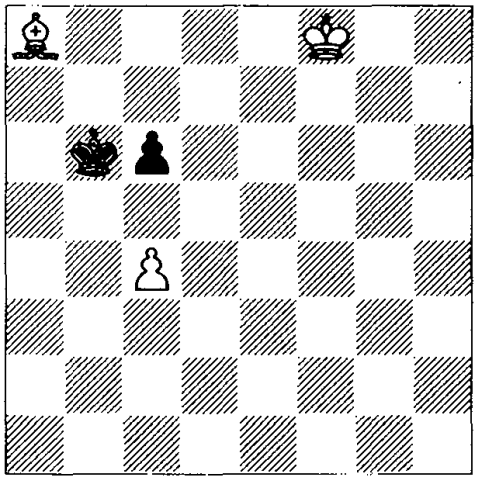
The solution to this study requires only minimal calculation, the more important factors being logic and endgame knowledge. The black king threatens to go to b6, so White has no choice:

1 ♗d5+ ♔b6 2 a8♕

Here some calculation is required. White must check the variation 2 ♗xb7 ♔xb7 3 ♔e7 ♔xa7 4 c5 ♔a6 5 ♔d7 ♔b5, which results in a draw.

2...♗xa8 3 ♗xa8 c6 *(D)*

W



The second stage of the calculation is reached. Here the main factor is the c4-pawn, which can only be saved by means of:

4 ♗b7 ♔xb7

The variation 4...♔c5 5 ♗a6 ♔b6 6 ♗c8 ♔c5 7 ♗e6 +– is of less interest. Now the third stage has been reached. White cannot allow ...c5, when the position is drawn, so his reply is forced:

5 c5 ♔a6

And now all that is needed is a knowledge of some endgame fundamentals:

6 ♔e7 ♔a5

6...♔b5 7 ♔d6 +–.

7 ♔d7! ♔b5 8 ♔d6

We have a position of mutual zugzwang, where Black is to move.

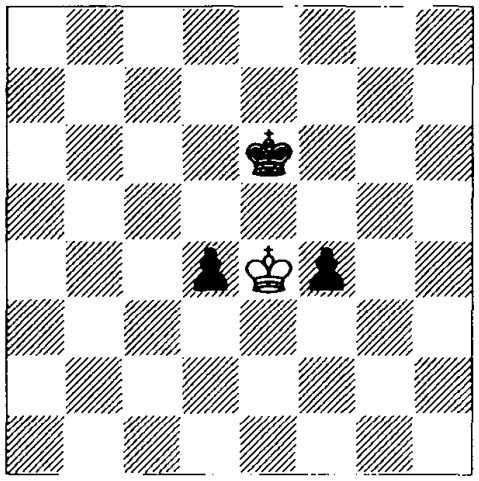
51)

R. Skuja

Padombu Taunatne, 1950 (version)

In the position before us, there is only one candidate move and variation, but it is not favourable for White: 1 ♔xf4 ♔d5 2 ♔f3 ♔c4 3 ♔e2 ♔c3. It follows from this that he must play the resulting move:

1 ♔e4! *(D)*



1...f3

1...♔d6 2 ♔xd4 =; 1...♔f6 2 ♔xf4 =.

2 ♔xf3 ♔d5 3 ♔e2

This is the point. The white king turns out to be one move closer and makes it to the key square in time.

3...♔c4 4 ♔d2

With a draw.

52)

Bacrot – Filippov

Moscow 2005

White launches by force an irresistible attack on the black king:

14 h3! ♕e6 15 ♕a4! ♘c7 16 ♗c4! ♕f5 17 ♕a5! ♘e8 18 ♗f7! 1-0

There is no defence.

53)

Larsen – Botvinnik

Leiden 1970

Here we have a small chess tragedy. Black has totally outplayed his opponent, and it is easy to imagine many grandmasters (myself included), who would have resigned in White's shoes. But the great Botvinnik now commits a whole series of oversights:

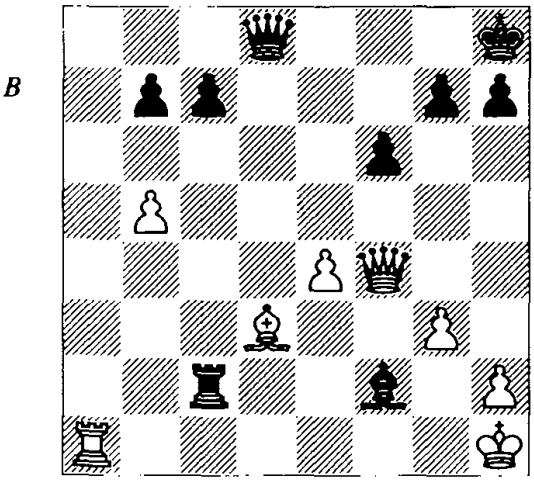
33...♕d8?!

As we know, the ideal solution in such positions is a forcing variation, not giving the opponent any hope. Here this was possible by means of 33...g5! 34 ♕xf6+ (34 ♕f5 ♗xf2+ 35 ♔h1 ♗d4) 34...♕xf6 35 ♖xf6 ♗xf2+ 36 ♔h1 ♗d4. Now Black's uncertainty increases.

34 ♔h1 ♗xf2

Better was 34...♖xf2 35 ♖xf2 ♖xf2 with a clear advantage.

35 ♖d3! ♖xd3 36 ♗xd3 *(D)*



And now it all turns into a nightmare:

36...♖b2??

Even here, 36...♗d4! 37 ♖d1 ♖f2 would have been very strong.

37 ♕xc7!

Now it is White who wins!

37...♕g8 38 ♕xb7 ♖a2 39 ♖c1 ♖a8 40 ♖c7 ♖b8 41 ♕d5 ♗b6 42 ♖c6 ♕f8 43 ♕f5 ♕g8 44 ♔g2 ♗d4 45 ♕d5 ♗b6 46 h4 ♕f8 47 e5 1-0

54)

Smirin – Pelletier

European Team Ch, Gothenburg 2005

White is more active and finds a way to transform his pressure into a forcing variation:

23 ♗c5! ♖fe8 24 ♗d6! ♔h8

Not 24...♘d5? 25 ♖xd5, nor 24...♔f8 25 ♕g4!.

25 ♗xe7! ♗xe7 26 ♕xf7 gxh6 27 ♖xd8 ♗xd8 28 ♖d1

White has achieved a winning position. The rest is elementary.

28...♕g6 29 ♕xb7 ♖f8 30 ♖d6 ♕f5 31 ♕d5 ♗g5 32 ♖e6 1-0

55)

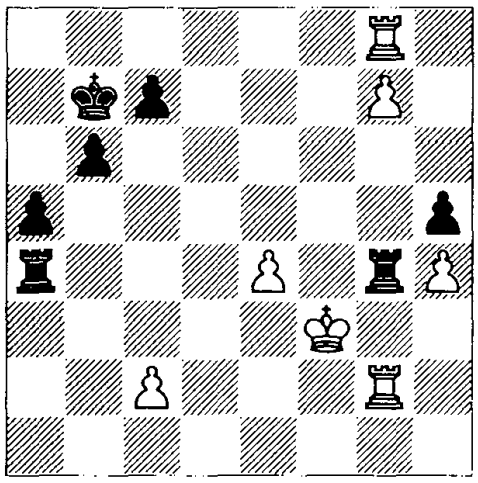
O. Duras

Casopis Československy Šach, 1912

This again is a study which is solved by a resulting move. It is clear that simply moving the rook from g8 does not bring White anything, nor does sacrificing on b8 with check. But the second idea leads us to the correct decision:

1 e4! *(D)*

B



1...♖axe4

If 1...♖xg2 2 ♔xg2 ♖xe4 3 ♖b8+ ♔xb8 4 g8♕+ ♔a7 5 ♕g5! ♖g4+ 6 ♕xg4 hxg4 7 h5 White wins, as he does also in the variation 1...♖gxe4 2 ♖f8. Similarly, he can escape the checks after 1...♖a3+ 2 ♔f2 ♖f4+ 3 ♔e2 ♖xe4+ 4 ♔d2 ♖d4+ 5 ♔c1 ♖a1+ 6 ♔b2 ♖ad1 7 ♖e8 b5 8 g8♕ ♖b4+ 9 ♔c3 ♖c4+ 10 ♕xc4. After the text-move, the first idea comes into its own.

2 ♖b8+ ♔xb8 3 g8♕+

and the e4-rook is lost.

56)

H. Mattison

Deutsches Wochenschach, 1918

This position is best solved in stages. Since 1 ♔g2? g4 2 ♔g3 ♔h5 3 f5 f6 and 1 fxg5+? ♔h5 2 ♔g2 ♔xh4 3 g6 fxg6 4 ♔h2 g5 5 ♔g2 ♔g4 both lose for White, his first move is essentially forced:

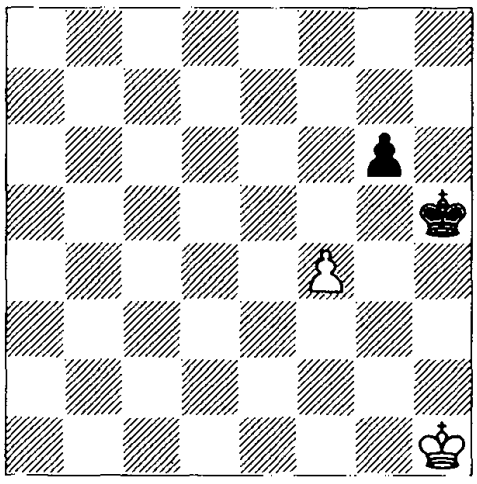
1 hxg5+ ♔h5

Now the second stage starts. It transpires that if the black king takes the f4-pawn, then White loses in all variations, since Black will always have at least one dangerous move with the f-pawn. It follows from this White loses in all variations after 2 ♔g2 ♔g4, as he also does after 2 f5 ♔xg5 3 ♔g2 ♔xf5 4 ♔f3 f6, when again it is White to move. Only one move remains:

2 g6 fxg6 *(D)*

2...♔xg6 3 ♔g2 is an immediate draw. But now, it is clear for the reasons enumerated above that there is only one possible move:

W



3 f5!

Not 3 ♔g2? ♔g4 4 f5 gxf5!.

3...gxf5

We have reached stage four, the simplest.

4 ♔g1! ♔g5 5 ♔f1!

with a draw.

57)

Bronstein – An. Bykhovsky
Moscow 1962

In situations like this, one must first examine the transition into a pawn ending, and only if that is not favourable need one consider other moves.

56 ♖xe7+ ♔xe7 57 ♔h5 ♔f7

The main variation is 57...♔f6 58 ♔xh6 ♔xf5 59 ♔g7 ♔e4 60 ♔f6 ♔xe3 61 ♔e5 and White wins.

58 f6! 1-0

After 58...♔xf6 59 ♔xh6 we transpose into the previous line.

58)

Knežević – I. Zaitsev
Moscow 1968

In what appears at first sight to be a difficult position, White finds a short and accurate path to victory:

31 ♖d8+! ♖e8 32 ♕f3!!

Here it was still possible to blow it by preferring the 'obvious' variation: 32 ♕e7?? ♕xd1+ –+.

1-0

Black resigned due to 32...♕xf3 (32...♖xd8 33 ♕xf6+; 32...♕g6 33 ♖xe8+ ♕xe8 34 ♕xf6+ +–) 33 ♖xe8+ ♔g7 34 ♖d7+ ♔g6 35 ♖g8+ ♔f5 36 ♖xg5+ hxg5 37 gxf3.

59)

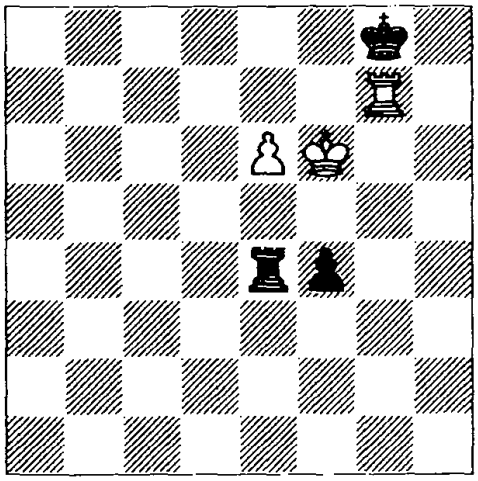
L. Dominguez – Sadvakasov
Poikovsky 2005

We have here a typical ending, which is worth remembering. Black is hampered fatally by his own pawn, which shelters the white king from checks. The winning method is instructive:

59 e6 f4 60 ♖g7+! *(D)*

A typical and very effective device. The direct method 60 e7 f3 61 ♖a8+ ♔h7 62 e8♕?? (correct is 62 ♖a3! ♖f4+ 63 ♔e5 f2 64 e8♕ f1♕ 65 ♖a7+ +–) fails to 62...♖xe8, when White even loses in the event of 63 ♖xe8?? f2 –+.

B



60...♔h8

60...♔f8 61 e7+ ♔e8 62 ♖g8+ ♔d7 63 ♖d8+ ♔c7 64 e8♕.

61 ♖g4 ♖e1 62 ♔f7 1-0

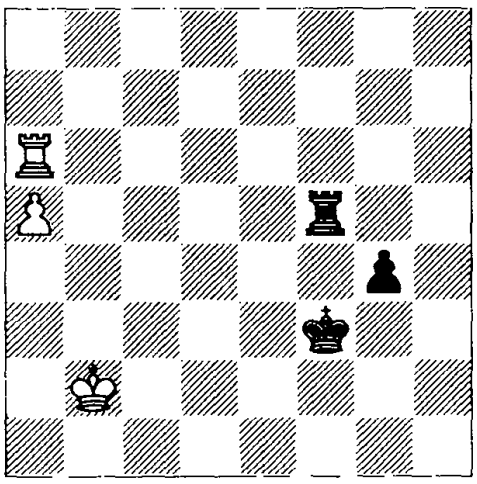
60)

Beliavsky – Radulov
Leningrad 1977

The hasty pawn advance 53...g3 54 ♖g6 g2 55 ♔b3 ♔f2 56 ♔b4 g1♕ 57 ♖xg1 ♔xg1 58 ♔c5 leads to a draw. Similarly, after 53...♖g7 54 ♖f6+ White saves himself. The only correct line is:

53...♖f5! *(D)*

W



54 ♖a8

If 54 ♔b3 g3 55 ♔b4 g2 56 ♖g6 Black utilizes the typical manoeuvre 56...♖f4+ 57 ♔b5 ♖g4.

54...g3 55 a6 ♖f6! 0-1

61)

Azmaiparashvili – Dreev

Dos Hermanas 2005

White wins in the most reliable way, i.e. by force. He finds a combination with a geometrical motif:

42 ♖e6! ♔f7 43 ♖xf6+! ♔xf6 44 d7 ♗e7

The main point is the variation 44...♔e7 45 ♗c5+ ♔xd7 46 ♗xf8.

45 ♗b6 f4 46 ♔f3 1-0

62)

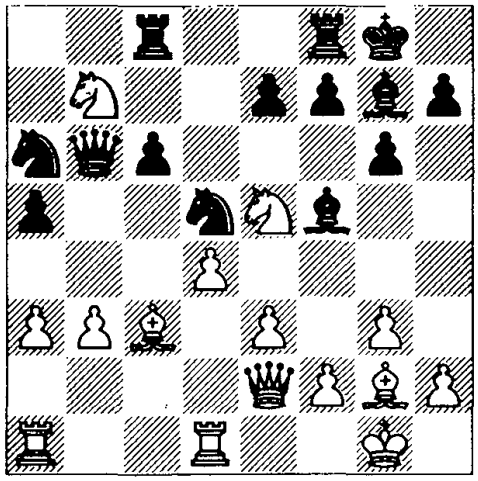
Taimanov – Moiseev

USSR Ch, Moscow 1951

White finds a continuation which forcibly changes the position in his favour:

26 ♘xb7! ♕b6 *(D)*

Black is even worse off after 26...♘xc3 27 ♕xa6 ♕c7 28 ♖dc1.



27 ♗xa5 ♕xb7 28 e4 f6?!

Black collapses, but even after the strongest line 28...♗xe4 29 ♕xe4! ♕xb3 30 a4 ♕b7 31 ♘xc6 White has an indisputable advantage.

29 ♘c4 ♗xe4 30 ♗xe4 ♕xb3 31 ♖db1 ♕a4 32 ♗c2 1-0

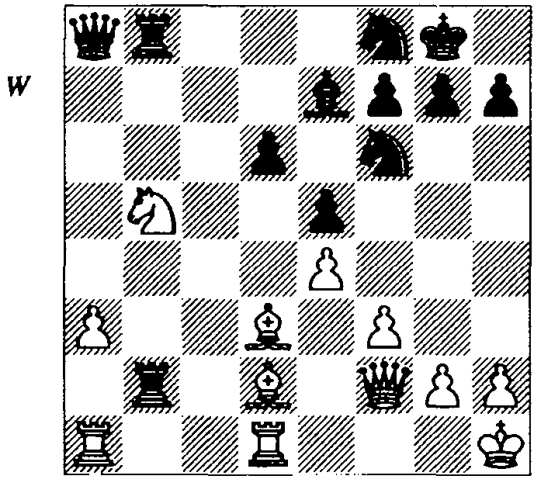
63)

Anand – Gelfand

Amber rapid, Monte Carlo 1999

White's advantage is based on his two bishops and the possibility of creating an outside passed pawn on the a-file. As a rule, both of these factors are more easily exploited in the absence of queens, and it is therefore understandable that the exchange of queens favours White. This aim is achieved by means of a short but accurately calculated manoeuvre:

24 ♘xb5! ♖xc2 25 ♗d3 ♖b2 *(D)*



26 ♕a7!

This invasion was the point. Now Black's position collapses surprisingly quickly.

26...♕b7 27 ♕xb7 ♖xb7 28 a4 ♘e6 29 ♗f1 ♘c5 30 ♗e3 ♘fd7 31 ♘xd6 ♗xd6 32 ♖xd6 ♖b1 33 ♖xb1 ♖xb1 34 ♗xc5!

This very simple episode also deserves attention. Anand chooses the simplest and most forcing line, depriving his opponent of any hopes.

34...♖xf1+ 35 ♗g1 ♘f8 36 a5 ♘e6 37 a6 ♖a1 38 a7 1-0

64)

Goloshchapov – Kharlov

European Ch, Batumi 2002

57...♔b1!

The only winning move. Other moves lead either to a repetition of the position or to an outright draw:

a) 57...♔d1 58 ♘g2+ ♔e2 59 ♕e3+ ♔d1 60 ♕g1+ ♔c2 61 ♘e1+.

b) 57...♔c1 58 ♘d3+ ♔c2 59 ♘e1+.

c) 57...♔c3? 58 ♕e3+! ♔c4 59 ♕xe6+ ♔b5 60 ♕e8+ ♔c4 61 ♕e6+ ♔c3 62 ♕e3+ ♔c4 63 ♕e6+!.

d) 57...♔b3 58 ♕b6+ ♔a3 59 ♕a7+ ♔b3 60 ♕b6+ ♔c3 61 ♕e3+ with a draw.

0-1

White resigned immediately, not needing to be shown the variation 58 ♘g2+ (58 ♘d3+ ♘f1++ 59 ♔h3 ♕h2+ –+) 58...♕c1 59 ♕b6+ ♔c2 60 ♘e3+ (60 ♕c5+ ♔b2 61 ♕b6+ ♘b3 –+) 60...♔d3 61 ♕a6+ ♘c4 62 ♘xc4 (62 ♕xa2 ♔xe3 63 ♕a7+ ♔e2 64 ♕xh7 ♘d2 –+) 62...♕xc4 –+.

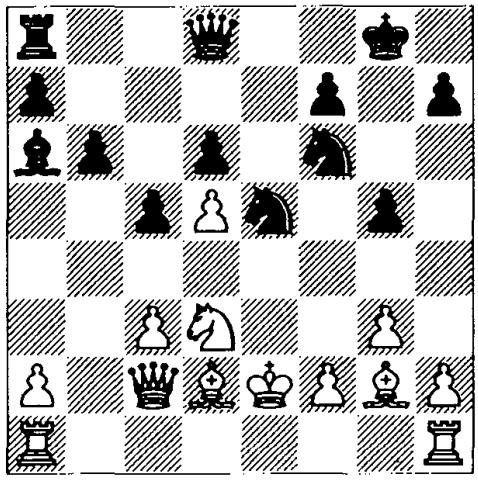
65)

V. Mikenas – Keres

USSR Ch, Moscow 1949

The white king is in a precarious position. It is also clear that Black's concrete target is the e2-square. These considerations lead to the following decision:

13...g5! 14 ♘d3 ♖xe2+ 15 ♔xe2 ♘e5 *(D)*



The resulting position can only have one assessment: Black has an extremely dangerous initiative.

16 ♔d1

White also loses after 16 ♗xg5 ♗xd3+ 17 ♕xd3 ♘xd3 18 ♔xd3 ♕d7!, as Keres points out.

16...♗xd3 17 ♕a4

White loses his head and goes under immediately. 17 ♕b3 is more resilient, but even then after 17...♘fg4 Black has a large advantage.

17...b5 18 ♕a6 ♕d7! 19 ♔c1 b4 20 ♕a5 a6! 0-1

The queen is trapped.

66)

Yusupov – Reuss

German Ch, Altenkirchen 2005

The easiest way for White to realize his advantage is by exploiting the cooperation of queen and knight. This is achieved by force:

35 ♕e5+!

Significantly weaker is 35 ♘xa5 ♗h3 36 ♕e4 ♗f5 37 ♕g2 ♕d3 38 ♘b7 ♗e4 39 ♘c5 ♗xg2 40 ♘xd3 ♗xd5.

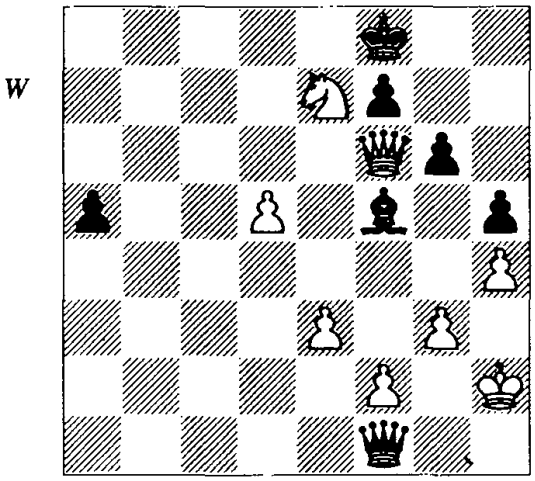
35...♔g8

After 35...♔h7 36 ♕f6 ♕h3+ 37 ♔g1 ♕f5 38 ♕xf5 ♗xf5 39 ♘xa5 the ending is easily winning.

36 ♕f6 ♗f5

The only move.

37 ♘e7+ ♔f8 *(D)*



38 ♘xg6+!

White had to foresee this blow when calculating his 35th move. All other continuations fail.

38...♗xg6 39 d6 ♔g8 40 d7 1-0

67)

Stepichev – Yukhtman

USSR 1969

Not much material remains on the board, and this factor requires great accuracy from Black. Thus, in the event of 1...♖a2?! 2 ♘e3+ ♔g5 3 ♖xf6! ♔xf6 4 ♔g3 the most likely result is a draw. But there is a win, and it is achieved by force:

1...g3+! 2 ♔h3

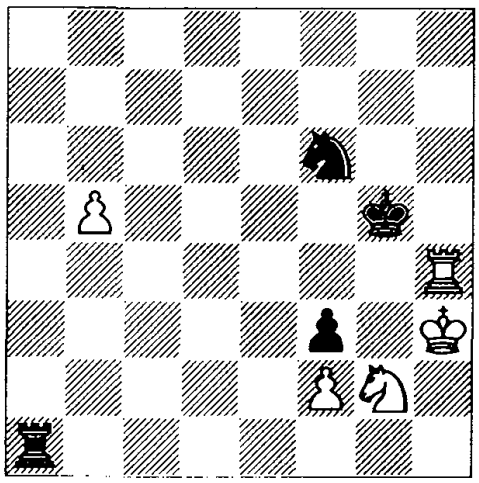
The only move.

2...g2!

The only way! Weaker is 2...gxf2? 3 ♘e3+ ♔f4 4 ♘f1 ♖e6 5 ♖h4+ ♔g5 6 ♘h2 ♖e1 7 ♘xf3+ ♔f5 8 ♘d2 ♖d1 9 ♘f1! ♖xf1 10 ♔g2 with a draw.

3 ♘e3+ ♔g5 4 ♘xg2 ♖a1! 5 ♖h4 *(D)*

B



5...♖h1+!

Again, the only way. 5...fxg2? is significantly weaker: 6 f4+ ♔f5 7 ♔xg2.

6 ♔g3 fxg2 7 f4+ ♔f5 0-1

68)

Evans – Larsen

Dallas 1957

A rook sacrifice is forced. The only question is on which square.

27...♖f1+!

The only correct solution. The continuation 27...♖xg2+? 28 ♔xg2 ♕g5+ 29 ♖g3! ♖d2+ 30 ♖xd2 ♕xd2+ 31 ♔f3 ♘xg3 32 hxg3 ♕xb2 33 ♕c8+ ♔h7 34 ♕f5+ ♔h6 35 ♕xf7 = is much weaker.

28 ♖xf1

Or 28 ♔xf1 ♕f5+ 29 ♔g1 ♕c5+ 30 ♔h1 ♘f2+ 31 ♔g1 ♘h3+ 32 ♔h1 ♕g1+ 33 ♖xg1 ♘f2#.

28...♕c5+! 0-1

69)

L. Kubbel

Niva, 1910

The solution of this study also proceeds by stages.

1 ♘e7 ♗c2

1...♗d1 2 ♘c6! – see move 4!

2 ♘d5! ♗a4 3 ♘b4! ♗d1 4 ♘c6! ♗a4 5 ♘d4!

70)

Keres – Bronstein

Moscow (training) 1951

White needs to find a precise route to realize his advantage, something Keres could do splendidly.

39 ♗h5! ♕c8

39...♕xh5 40 ♕f8+ ♖g8 41 ♕f6+.

40 ♖xg7 ♔xg7 41 ♕e7+ ♔g8

And now there follows the most important element of the whole operation.

42 g4! ♕d7

Black's position is untenable after 42...fxg4 43 f5 ♗xf5 44 ♗f7+ +–; 42...h6 43 ♗g6 +–.

43 ♗f7+ 1-0

71)

Korchnoi – Tal

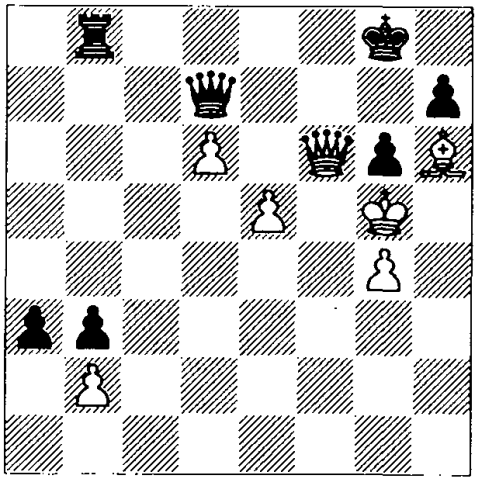
USSR Ch, Erevan 1962

50 ♖xd7!!

The variation 50 ♕xf7+ ♔xf7 51 ♖xd7+ ♔e6 52 ♖e7+ ♔d5 should be rejected as allowing Black too many counterchances.

50...♕xd7 *(D)*

W



51 e6

Now Black's only hope is checks, and these can be stopped by some centralization...

51...♕a7 52 ♕e5!

...such as this! There is no sense at all in being deflected by variations such as 52 d7 ♕a5+ 53 ♔f4 (only move) 53...♕d2+ 54 ♔g3 (again forced) 54...♕e1+, even though analysis shows that there is a win.

52...axb2 53 e7 ♔f7 54 d7! 1-0

72)

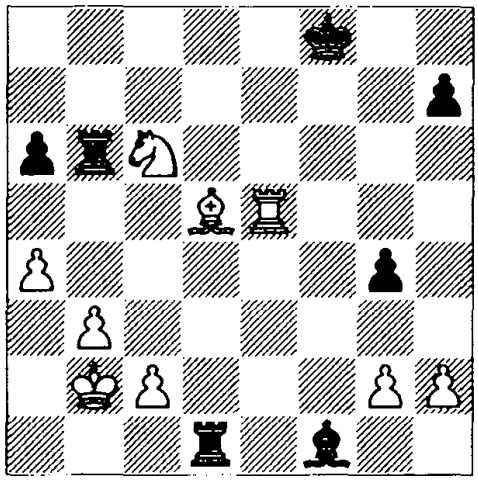
Svidler – Lautier

Olympiad, Calvia 2004

White has the advantage, but there is nothing immediately decisive. First of all, he should do his utmost to restrict his opponent's counterplay. Svidler found a splendid manoeuvre:

30 ♖xf7+! ♔e8 31 ♖e7+! ♔f8 32 ♖e5! *(D)*

B



32...♖d2

The main point is 32...♖xd5? 33 ♖xd5 ♖xc6 34 ♖f5+. White also has a clear advantage after 32...♗c4 33 ♗xc4 ♖xc6 34 ♖g5.

33 ♔c1! ♖f2 34 ♖g5 ♔e8 35 ♖xg4

White indisputably has a significant advantage, and won on move 63.

73)

Marzolo – P.H. Nielsen

French Team Ch, Noyon 2005

White's advantage is clear, despite his material deficit. It is time to cash in, but instead there followed:

18 dxc6?

White's calculation does not distinguish itself. The simplest line was 18 ♕c2! 0-0 19 dxc6, retaining a great advantage in a clear position. There was also a slightly more complicated way, which was also not too difficult to find: 18 ♕d4! b5 19 dxc6 ♕xa4 20 ♕xg7 ♖f8 21 ♗g5! ♖f7 22 ♕g8+ ♖f8 23 ♕xh7 ♖f7 24 ♕g8+ ♖f8 25 ♕g6+ winning.

18...fxe4 19 cxb7+ ♕xa4 20 bxa8♕ 0-0

Now if 21 ♘e5, then 21...♕d4. Thus it is now Black who has a small advantage.

74)

Yukhtman – Kots

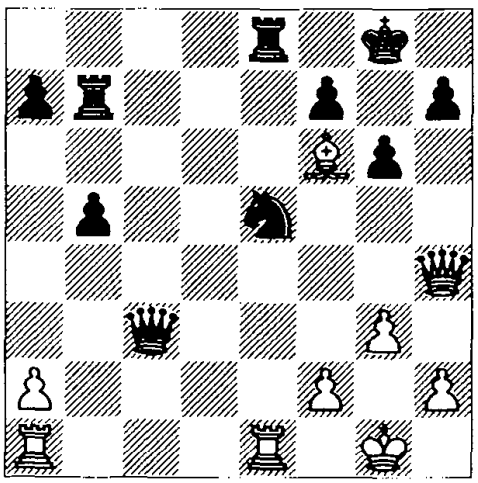
Ukrainian Ch, Kiev 1966

Here all is clear. White must calculate the consequences of moving the queen into h6. Doing so immediately fails: 24 ♕h6 ♘f3+ 25 ♗xf3 ♖xe1+ 26 ♖xe1 ♕xe1+ 27 ♔g2 ♗xf3+ 28 ♔xf3 ♕h1+ 29 ♔g4 ♕e4+ and Black wins. Therefore the move-order must be amended:

24 ♗xb7 ♖xb7 *(D)*

White has a winning position after the alternative 24...♘f3+ 25 ♗xf3 ♖xe1+ 26 ♖xe1 ♕xe1+ 27 ♔g2.

W



But now the queen raid is possible:

25 ♕h6! ♘f3+ 26 ♔g2 ♘xe1+ 27 ♖xe1 ♕c6+ 28 ♔h3 ♕d7+ 29 ♔h4 1-0

75)

Korneev – Speelman

Gibraltar Masters, Catalan Bay 2003

The essence of the position is clear: White leads in development and must act quickly to create threats. Black has weaknesses on the queenside and therefore the move which suggests itself is:

15 a4!

It only remains to calculate the variations:

15...♘xa4

15...bxa4? is totally bad due to 16 ♗xa6!.

16 ♗xb5+ axb5 17 ♕xb5+ ♗d7 18 ♕d5 e6 19 ♕f3 f6 20 ♘xd7 ♔xd7 21 ♕b7+ ♔e8 22 ♕c6+ ♔f7 23 ♖xa4

White has won a pawn by force and has good chances of exploiting it. Unfortunately, he played the later part of the game unconvincingly and the game ended in a draw.

76)

Bluvshtein – Efimenko

Montreal 2005

Despite his extra piece, White faces a difficult problem. Black only needs to exchange the last pawn, and this is not easy to prevent, as is shown by the variation 57 ♖a2 ♖e3 58 ♖f2 ♔g5 59 ♔d4 ♔g4 60 ♘c4 ♔g3! 61 ♖c2 ♖e1 62 ♘e5 ♖g1. Therefore:

57 ♖a8! ♖e2 58 ♖g8+ ♔f6 59 ♘c4 ♔f5 60 ♔d4 ♖f2 61 ♘d6+ ♔e6 62 ♖g6+ ♔d7 63 ♘e4 ♖f1 64 ♔e5

64 ♘d2 is also good.

64...f3 65 g3 ♔e7 66 ♖f6 ♔d8 67 ♖f4 ♔e7 68 ♔f5 1-0

77)

Bronstein – Simagin

Moscow Ch 1947

White has a forcing way to obtain a decisive advantage. He needs only to avoid wasting time:

28 c5! a4 29 e6!!

This move is the point of the whole line.

29...♘c8

Capturing loses: 29...axb3 30 e7 ♖e8 31 ♖d8 bxa2 32 ♖xe8+ ♔h7 33 ♖h8+ ♔xh8 34 e8♕+ ♔h7 35 ♕e1, while the same is true of the variation 29...♔h7 30 e7 ♖e8 31 cxb6 axb3 32 bxc7 bxa2 33 ♖a1 f6 34 ♖xa2 ♔g8 35 ♖a7.

30 exf7+ ♔h8 31 ♗c4 b5 32 ♗e6 g5 33 ♖d7 1-0

78)

Gelfand – Korchnoi

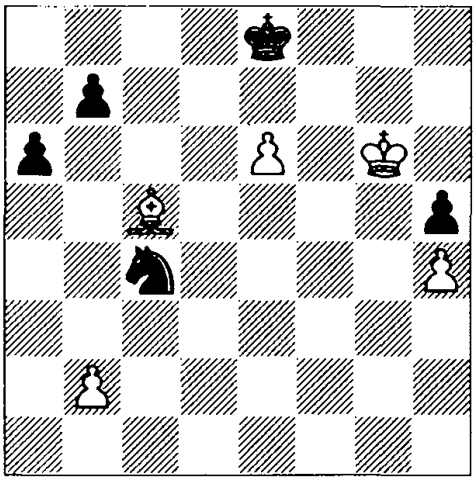
Dos Hermanas 1999

In this apparently simple situation, White in fact faces a far from easy choice.

51 ♗c5!! *(D)*

It is not so simple to understand the point of this move, or the two exclamation marks appended to it. Gelfand himself gave the explanation. He pointed out the variation 51 ♗d4 ♔e7 52 ♔xh5 ♔xe6 53 ♔g6 ♘d6 54 h5 ♘f5 55 ♗b6 ♘e7+ 56 ♔g7 ♘f5+ 57 ♔f8 ♔f6 58 ♗d8+ ♔e6 59 ♔g8 ♔d7 60 ♗g5 ♔e6 61 h6 ♘xh6+ 62 ♗xh6 a5 =, and from the calculation of this line, it is clear that White must either restrict the activity of the black king, or find a way to provoke a new weakness in Black's position. The text-move fulfils both tasks brilliantly, and gets one exclamation mark for each!

B



51...b6

In the variation 51...♘xb2 52 ♔xh5 ♘d3 (52...b6 also loses, to 53 ♗d4 ♘c4 54 ♔g6 ♔e7 55 h5 ♔xe6 56 h6 ♘d6 57 h7 ♘f7 58 ♗xb6 +–) 53 ♗d6 b5 54 ♔g5! b4 55 h5 the passivity of the black king proves crucial, and White wins.

52 ♗d4 ♔e7 53 ♔xh5 ♔xe6 54 ♔g6 ♘d6 55 ♗xb6 ♘f5 56 h5 ♘e7+ 57 ♔g7 ♘f5+ 58 ♔g6 ♘h4+ 59 ♔g7 ♘f5+ 60 ♔f8 ♔f6 61 ♗d8+ ♔e6 62 ♔g8 ♘h6+ 63 ♔g7 ♘f7 64 ♗c7 1-0

79)

Gutman – Shanava

Pardubice 2003

It is clear that White needs to calculate moves with his light-squared bishop. The variations 18 ♗xg6 ♗xh2+! 19 ♔xh2 ♕h4+ and 18 ♗e4 ♕h4 19 f4 ♕xh6 20 fxe5 ♕e3+ do not offer White anything special, and lead only to unclear positions. Only one continuation brings success:

18 ♗b5! ♕h4 19 g3! ♕xh6 20 ♗xe8 ♗a6

The whole variation is based on the following combination:

21 ♗xf7+! ♔xf7 22 ♖fe1! ♗f6 23 ♕a4! 1-0

80)

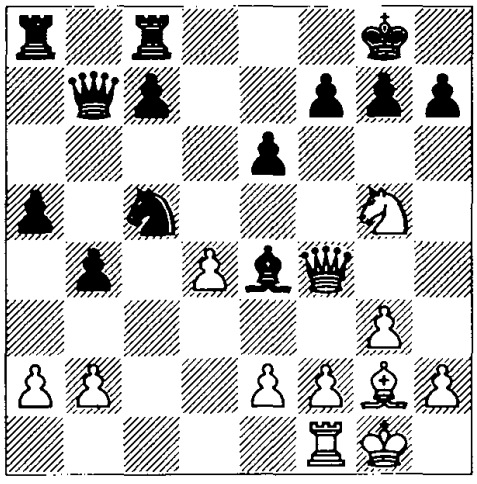
Wells – Speelman

Gibraltar Masters, Caleta 2005

Almost all of Black's pieces are on the queenside, and it is therefore not surprising that White finds a way to destroy him on the kingside.

20 ♘g5! ♘xc5 *(D)*

After 20...♗xg2 Wells points out the variation 21 ♕xf7+ ♔h8 22 ♘xe6 ♖g8 23 ♖xc7 ♕e4 24 ♘g5, etc., winning.



W

21 ♕xf7+ ♔h8 22 ♕h5! h6

Another line pointed out by Wells is 22...♗g6 23 ♗xb7 ♗xh5 24 dxc5 ♗xe2 25 ♖c1! with advantage.

23 ♘xe4 ♘xe4 24 ♕g6!

Now White has a very strong initiative in every line, and he went on to win.

81)

Gelfand – Hort

Olympiad, Novi Sad 1990

White's task is to reduce to a minimum the activity of the black queen, and then to invade the opponent's queenside. This is achieved as follows:

29 ♗d2!

Variations such as 29 ♕a7 ♘d7! 30 ♕xb7 (30 bxa6 ♕xg5+ 31 ♔f2 ♕h4+ =) 30...♕e3+ 31 ♔g2 ♘xe5 should be calculated only as a last resort.

29...♕xe5 30 ♘d3! ♕f5

After 30...♕a1+ 31 ♗e1 White is already prepared to penetrate with his queen. But this is also possible even now.

31 ♕a7! ♘d7

Also losing is 31...♕xf3 32 ♕xb8+ ♔g7 33 ♗c3+.

32 ♘e1! ♗c8

Or 32...♘e5 33 ♕b8+ ♔g7 34 ♗c3.

33 ♕c7 1-0

82)

Short – Beliavsky

FIDE Knockout, Groningen 1997

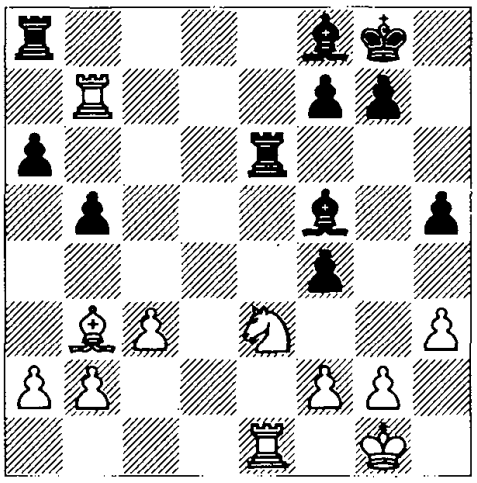
In this position, White has a forced win:

25 ♖xd7! ♗xf5

25...♕xd7 loses to 26 ♕xe4 exf4 27 ♗xe6 ♕xe6 28 ♕xa8.

26 ♖xb7 exf4 *(D)*

If 26...♗e4 then 27 ♖d7 exf4 28 ♗xe6 fxe6 29 ♖d4 wins.



W

The first stage of the calculation is ended. Now White has a clear and effective resource:

27 ♖xf7!! 1-0

"Simple but pretty nonetheless." (Short). Black resigned due to the variation 27...♔xf7 28 ♘xf5 ♔f6 29 ♗xe6 ♖e8 30 ♘d4 ♗c5 31 ♖d1! ♗xd4 32 ♗d7.

83)

Karpov – Taimanov

Moscow (teams) 1983

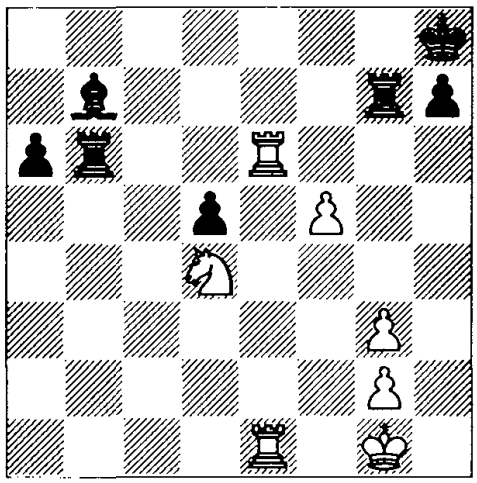
White found a far from simple, but highly effective, means of increasing his advantage to decisive proportions.

48 f5! ♖b6

If 48...♖xg3 49 f6 Black suffers decisive material losses.

49 ♖7e6! *(D)*

B



This is the move which was really difficult to find. The rest is easier:

49...♖xe6

The only move; 49...♖b4 50 f6 +–.

50 fxe6 ♖g8 51 e7 ♖e8 52 ♘f5 ♗c6 53 ♘d6 ♖g8 54 e8♕ ♗xe8 55 ♘xe8 ♖xg3 56 ♘f6! 1-0

84)

Taimanov – Prins

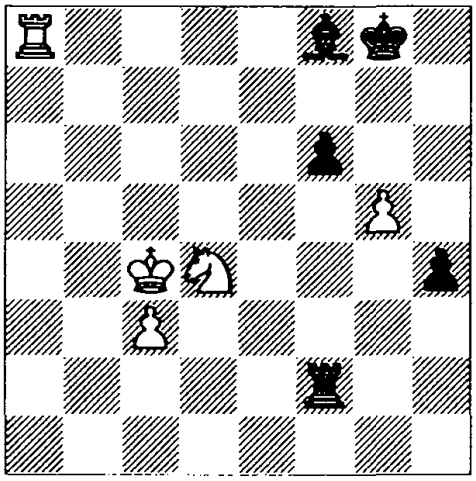
Interzonal tournament, Saltsjöbaden 1952

The small number of pawns and his passed pawn give Black some chances of saving the game, as shown by a typical variation such as 39 ♔d5 h3 40 c4 h2 41 ♖a1 ♖g2 42 ♖h1 ♖xg5 43 ♖xh2 g6. Instead, Taimanov found a remarkable idea, forcing the win:

39 f6!! gxf6 *(D)*

After 39...h3 40 ♘e6 gxf6 41 g6 White mates, while after 39...♔f7 40 g6+ ♔xg6 41 ♖xf8 ♖xf6 42 ♖h8 ♔g5 43 ♔d5 he wins easily.

W



40 g6! ♔g7

40...♖f4 41 ♔d5 also fails to save the game for Black.

41 ♘e6+ ♔xg6 42 ♖xf8 ♔h7 43 ♖d8 h3 44 ♖d3 h2 45 ♖h3+ ♔g6 46 ♘d4! f5 47 ♔d3 f4 48 ♔e4 1-0

85)

Ki. Georgiev – Kempinski

European Team Ch, Gothenburg 2005

In this example, Black fails to choose the correct continuation from two possibilities.

63...♖xh5?

He could draw by means of 63...♖e6+ 64 ♔b7 ♖e5 65 ♖h7+ (65 ♖xh6 ♖a5 66 ♖xf6 ♖xa4 =) 65...♔e6 66 ♔b6 ♖xh5 67 a5 ♖h1 68 a6 ♖b1+ 69 ♔c6 ♖c1+ 70 ♔b7 ♖b1+ 71 ♔c8 ♖a1 72 a7 f5 as Black's counterplay is adequate to save the game: 73 ♖xh6+ ♔e5 74 ♔b7 ♖xa7+ 75 ♔xa7 f4 =. In the game, things turned out much worse:

64 a5 ♖h1 65 a6 ♖b1+ 66 ♔c5 ♖c1+ 67 ♔d5 1-0

In his initial calculations, Black had either missed the standard means of winning the rook by 67...♖d1+ 68 ♔e4 ♖e1+ 69 ♔d3 ♖a1 70 a7 or that 67...♖c8 loses to 68 ♖h7+.

86)

J. Horvath – Kosten

French Team Ch 2005

Black started with an effective, but nonetheless fairly standard, tactical blow:

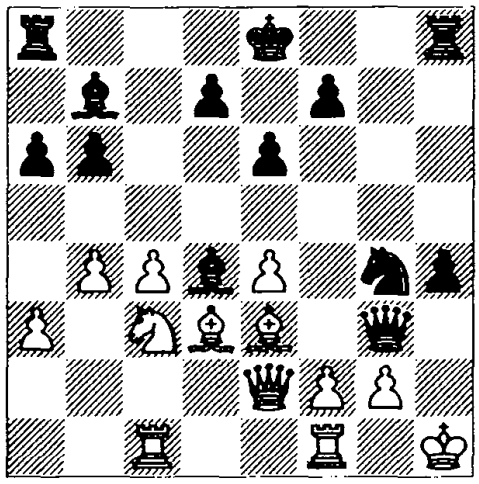
18...♕g3!! 19 ♗e3

White has no other defence. He loses immediately after 19 ♕f3 ♘xg4 20 ♗f4 ♘xf2+.

19...♘xg4! *(D)*

The point! If 19...♗xe3 20 ♕xe3 ♕xe3 21 fxe3 ♘xg4 22 ♘a4 White is OK.

W



20 fxg3 hxg3+ 21 ♔g1 ♘xe3!

This capture is another important element in Black's play. 21...♗xe3+ is significantly weaker: 22 ♕xe3 ♘xe3 23 ♖f3.

22 ♖f2 ♘f5! 23 exf5 gxf2+ 24 ♕xf2 ♗xf2+ 25 ♔xf2 ♔e7

and Black soon won.

87)

Salov – J. Polgar

Madrid 1997

Black managed to carry out a simple but effective attack on the enemy king.

51...♖c6! 52 ♗f8

White's problem is that his rook is tied to the a-file, which gives rise to such variations as 52 g4 ♖b5+ 53 ♔a4 ♖cxc5 54 bxc5 ♖b1 55 ♔a5 ♖a1+ 56 ♔b6 ♖xa8 57 c6 ♔d5 58 c7 ♔e4, or similarly 52 f4 ♖b5+ 53 ♔a4 ♖cxc5. 52 ♗e3 also loses, to 52...♖xb4 53 ♖a7 ♖b2.

52...♖b5+ 53 ♔a4 ♖b8! 0-1

88)

Lukovnikov – Sapunov

Voronezh 2000

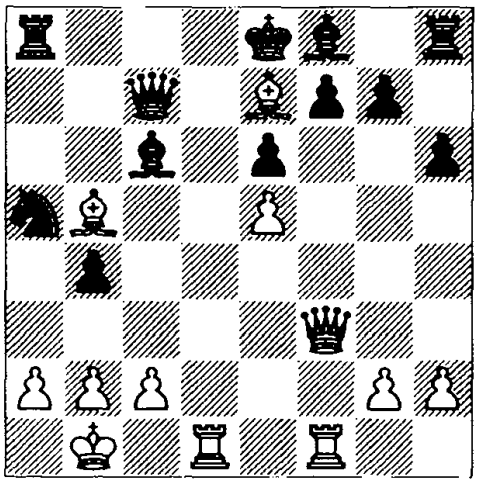
The diagram position had already arisen in a previous game. Then White had played 21 axb3 but after 21...♖a1+ 22 ♔d2 ♕d7+ 23 ♔e3 ♗c5+ completely unclear complications could have arisen. In the present game, after 21 ♔b1, Black played:

21...♘a5

There is nothing else: 21...♖c8 22 ♗xc6+ ♕xc6 23 ♕xc6+ ♖xc6 24 ♖d8#.

22 ♗e7!! *(D)*

B



This is the answer. Now Black's position is indefensible: 22...f5 23 exf6 ♔f7 24 fxg7+.

1-0

89)

Spassky – R. Byrne

Candidates match (game 6), San Juan 1974

White won in standard but instructive fashion:

50 c5! dxc5

After 50...bxc5 the following manoeuvre wins: 51 ♗e1! ♗d8 (otherwise the white bishop goes to a5, the pawn to b6 and then the king marches to c6, winning) 52 ♗c3 ♔b8 53 ♗g7 ♔c8 54 ♗f8 ♔d7 55 ♗h6! ♔c7 56 ♗g5.

51 d6! ♔d7 52 ♗xc5 ♗d8 53 ♗b4 ♔e6 54 ♔c4 ♗f6 55 ♗c5! ♗d8 56 ♗d4! ♔xd6 57 ♗e5+ ♔e6 58 ♗b8 ♔d7 59 ♔d5 1-0

90)

Spassky – L. Schmid

Olympiad, Varna 1962

Spassky found a way of removing the main defender of the black position immediately, without any further preparation:

22 ♗d3!! ♕xc5

22...♗xd3 23 ♘ce6! fxe6 24 ♕h7+ ♔f8 25 ♖xd3 is an important variation.

23 ♗xf5 ♘xd5

There is no salvation: 23...gxf5 24 ♕h7+ ♔f8 25 ♕h5 or 23...♖ed8 24 ♗xg6.

24 ♗e6! 1-0

91)

Keres – Malich

Olympiad, Varna 1962

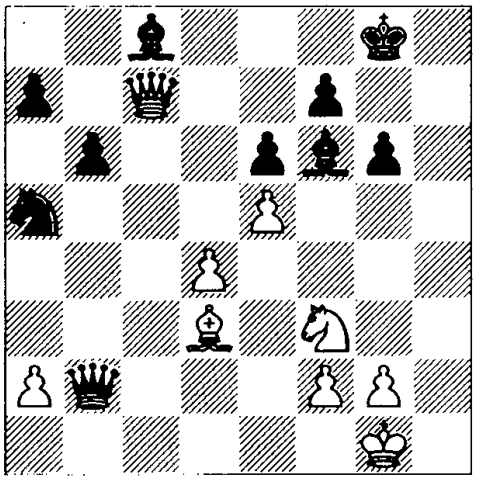
The first move is obvious:

26 ♕c7 ♕xb2

But now the calculation must start. The obvious capture 27 ♕xc8+ has the drawback that Black retains the harmonious arrangement of his pawns and bishop on the kingside. The variation could go as follows: 27...♔g7 28 e5 ♗e7 29 ♕c7 ♗a3!? 30 ♕xa7 ♘c6 31 ♕d7 ♘e7 and Black is doing fine. In other words, White would do well to remove the black bishop. Therefore:

27 e5!! *(D)*

B



27...♗e7

27...♗g7 28 ♕xc8+ ♗f8 29 ♗xg6! gives White a strong attack. 27...♗h4!? is an interesting try, but after 28 ♕xc8+ ♔g7 29 g3 ♗e7 (29...♕a3 30 ♗e4 ♗e7 31 ♕c7 ±) 30 ♕c7 ♗a3 the extra move g3 proves useful: 31 ♕d8! ♕c1+ 32 ♗f1! ♕c2 33 ♘g5 ♕f5 34 f4 ♘c6 (34...♗c1 35 ♗h3 +–) 35 ♕e8 ♘xd4 36 ♗d3 +–.

Now follows the concluding part of the attack.

28 ♕xe7! ♕c1+ 29 ♗f1! ♗b7

On 29...♗a6 White wins by 30 ♕d8+ ♔g7 31 ♕f6+ ♔g8 32 ♘g5 (Keres), and on 29...♕h6 by 30 ♘g5 ♕f8 31 ♕xa7.

30 ♘g5 ♕f4 31 g3 1-0

92)

Timofeev – Kurnosov

Russian Junior Ch, Noiabrsk 2005

White is able to win by force, but accurate calculation is required.

31 ♖xf6!

Not 31 ♘f7+? ♖xf7! 32 ♕xf7 ♘xc2.

31...♕xe5!?

31...♘xb3 32 ♖xd8 ♕xd8 33 ♘f7+ and 31...gxf6 32 ♕f7! lose quite quickly.

32 ♕d3!

This move and its consequences had to be foreseen at the start of the calculation.

32...♘e2+ 33 ♔g2 1-0

Black resigned in anticipation of the variation 33...♖xd3 34 ♖f8+ ♔h7 35 ♗xd3+ g6 36 ♗xg6+ ♔g7 37 ♖f7+ ♔g8 38 ♖d8+.

93)

Stein – Tal

USSR Trade Unions Team Ch 1961

Accurate calculation enables White to ignore his opponent's counter-threats.

26 ♖d4! ♘xb2

26...♕c3 is parried by means of 27 ♕xb6+.

27 ♔c1! ♕c5 28 ♖e3! ♔b7 29 ♖c3 ♖b5!?

Tal seeks chances to the very end! Hopeless is 29...♕xa5 30 ♘xa5+ ♔b8 31 ♘b3.

30 ♕a3!

Equally strong is 30 ♖xc5! dxc5 31 ♖a4!.

30...♕xa3 31 ♖xa3 ♖xd5 32 ♘a5+ 1-0

94)

N. Kopaev

1954

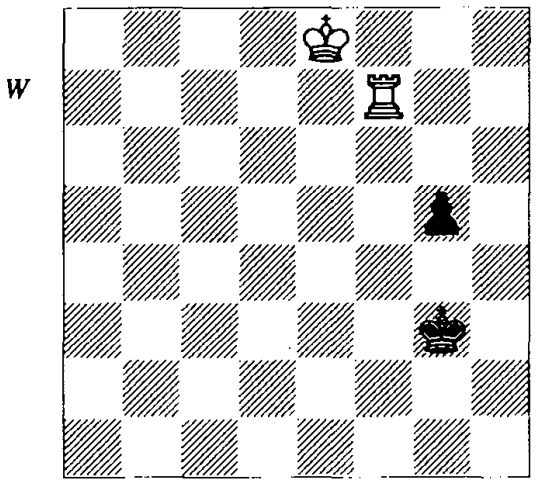
This study is not easy to solve, but is especially valuable, because it contains several of the most important elements of the ending rook versus pawn.

1 ♖f7+!

The first element: the method of winning a tempo. Only a draw results from 1 ♔f7? g4 2 ♔g6 g3 =.

1...♔g3! *(D)*

1...♔e3 is significantly weaker: 2 ♖g7 ♔f4 3 ♔f7 g4 4 ♔g6! g3 5 ♔h5!. Now White faces some far from simple problems.



2 ♔e7!

Bad is 2 ♖g7? g4 3 ♔f7 ♔f3 4 ♔g6 g3 5 ♔h5 g2 =.

2...g4 3 ♔e6!

Once again, great accuracy is required. The apparently equivalent move 3 ♔f6? is bad: 3...♔f4!! 4 ♔g6+ ♔e3 5 ♔h5 g3 =. Now things are simpler:

3...♔h2 4 ♔f5 g3 5 ♔g4 g2 6 ♖h7+ ♔g1 7 ♔g3! ♔f1 8 ♖f7+ ♔g1 9 ♖g7!

And White wins. Even here it was not too late to go wrong: 9 ♖f2? ♔h1 =.

95)

Gulko – Alekseev

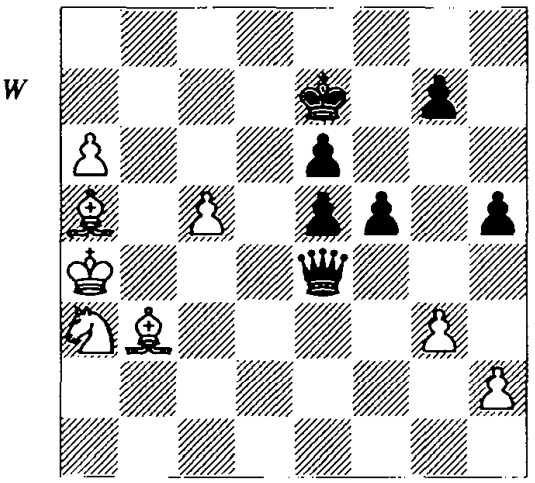
Distance Match,
St Petersburg vs New York 2005

An extremely unusual and interesting position, in which it is impossible to orient oneself by following analogous examples or general considerations. Everything has to be based on calculation of variations. That being the case, as well as the obvious move to a4, which is far from clear, it is also useful to calculate the king move to b5. It turns out that after 36 ♔b5! ♕xe4 37 c6 ♕d3+ White wins by 38 ♘c4! ♕xb3+ 39 ♗b4+ ♔e8 40 a7 ♕a2 41 ♗a5 ♕b3+ 42 ♔c5. It should be noted that this is all forced. In the game, White chose:

36 ♔a4

This does not spoil anything, however.

36...♕xe4+ *(D)*



37 ♗b4?

But this does! Again, he should play 37 ♔b5! ♕d3+ 38 ♘c4! ♕xb3+ 39 ♗b4, winning. Now the situation changes.

37...♕c6+ 38 ♔a5 f4 39 ♘c4 f3 40 ♘e3 ♔d8

White now made a further error, this time decisive:

41 ♗c2?

It was essential to play 41 ♗a4 ♕c7+ 42 ♔b5 ♕b8+ 43 ♔a5 ♔c7 with an unclear position. Later on, Black himself missed a win on move 49, and the game was drawn.

96)

Petrosian – Spassky

World Ch match (game 20), Moscow 1969

This is a classic game, in which White demonstrated his advantage in forcing style:

43 ♖xd5!

43 ♕b7!? is also good, though less forcing.

43...♕xf4!

White wins quite simply after 43...♖xb6 44 ♖xd6 ♗e7 45 ♘d5! or 43...♕f8 44 ♕b7.

44 ♕xa6

The only move.

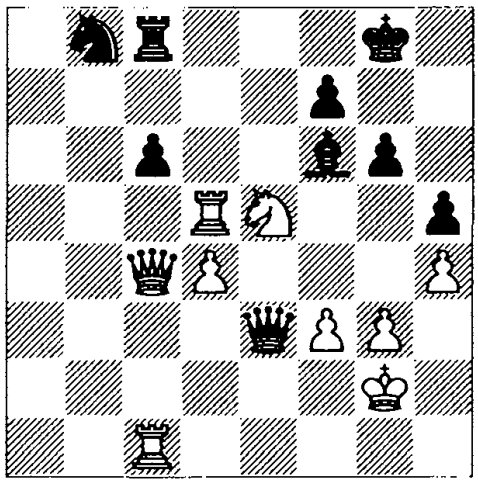
44...♕e4+ 45 f3 ♕e6 46 ♕c4 ♕xe3

White has a winning position after 46...♖e8 47 ♖e5! ♗xe5 48 ♕xe6 ♖xe6 49 ♘xe5.

47 ♘e5! *(D)*

Threatening the check 48 ♖d8+. Also adequate was 47 ♖d6!?, and in calculating the variations, it was enough for White to see this far.

B



The game concluded:

47...♖f8

47...cxd5 48 ♕xc8+ ♔g7 49 ♕e8! wins for White.

48 ♖c5!?

48 ♖d6! is also very strong.

48...♗e7 49 ♖b1! ♗xc5

Or: 49...♔g7 50 ♖b7 ♕d2+ 51 ♔h3 ♕e1 52 ♕c1 +–; 49...♗d6 50 ♖b2! ♔g7 51 ♕c3 +–.

50 ♖xb8! 1-0

50...♔h8 51 ♖xf8+ ♗xf8 52 ♘xf7+ ♔g7 53 ♘e5 ♔h6 54 ♕c2.

Of course, the impression created by White's accurate calculation is slightly diminished by the fact that it was the product of adjournment analysis.

97)

Tal – Hübner

Montreal 1979

This position contains a forcing solution:

20 ♗f4! ♗d6 21 ♖xd6! ♖xd6 22 ♘e5!

This move is fairly obvious, because it brings another piece into the attack, but it requires accurate calculation.

22...♔a8

The following line is important: 22...♘d5 23 ♘xf7 ♘xf4 24 ♖xf4 ♖f8 25 ♘xd6 ♖xf4 26 ♘b5!.

23 ♘c4!

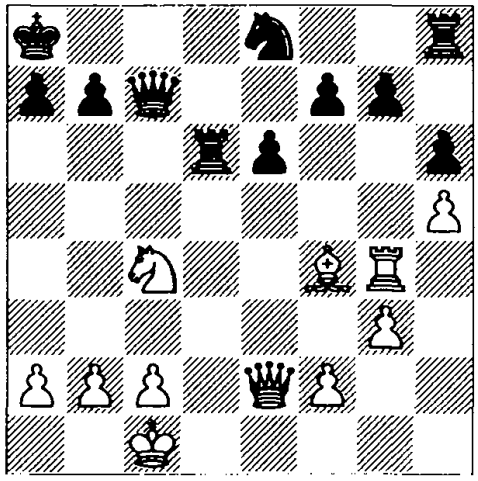
It was also possible to play 23 ♘xf7, but then White must reckon with the counterblow 23...e5. The game continuation is much more precise. It is also based on a nice tactical subtlety.

23...♘e8

In the event of 23...e5? Tal had prepared the following solution: 24 ♗xe5 ♖e6 25 ♗xc7! ♖xe2 26 ♘b6+ axb6 27 ♖a4#.

24 ♖g4! *(D)*

B



24...♕e7

Black cannot avoid material loss: 24...♖g8 25 ♘xd6 ♘xd6 26 ♕d3 ♖d8 27 ♖xg7.

25 ♘xd6 ♘xd6 26 ♖xg7

White went on to convert his advantage into victory.

98)

Gyimesi – Erdos

Hungarian Ch, Kazincbarcika 2005

White carried out a magnificent combination, requiring above all excellent calculation of variations.

36 b6+! ♔d7 37 ♖xh6!! ♗xh6 38 ♖xh6 ♕xh6

Now things are simple. 38...♕f5 is an important alternative. Then White wins by 39 d5!!. Foreseeing this move and calculating its consequences was the most difficult part of the combination. The variations run as follows: 39...♖a1+ (39...cxd5 40 c6+ +–) 40 ♔b2 ♕e5+ 41 ♕d4 ♕xd4+ 42 exd4 ♖a5!? (42...♖f1 43 dxc6+ bxc6 44 d5 +–) 43 ♖h7+ ♔d8 (43...♔c8 44 ♖c7+ ♔b8 45 d6 +–) 44 ♖xb7 cxd5 45 ♖g7 and White wins.

39 ♕f7+ ♔d8 40 ♕g8+ ♔e7 41 ♕xa8 ♕e6 42 ♕xb7+ ♔f6 43 ♔b2! fxe3 44 fxe3 g4 45 ♕c7 ♕c4 46 ♕f4+ ♔e7 47 ♕xe4+ ♔f6 48 ♕f4+ ♔e7 49 ♕xg4 ♕b4+ 50 ♔c2 1-0

99)

Kholmov – Keres

USSR Ch, Tbilisi 1959

Both sides had aimed for this position. White proved to be correct, having accurately assessed the consequences of the following operation:

12 ♘c6!! ♕d7

After 12...♕xd1 13 ♖xd1 ♗b7 (13...♗d7) 14 ♘d5 White has a large advantage.

13 ♘xe7!

This blow is the point of the entire combination, and required a great deal of calculation.

13...♔xe7

13...♕xd1 14 ♖xd1 ♔xe7 is strongly met by 15 ♗g5+! ♔e6 16 ♖d6+ ♔f5 17 f4 ♗xe5 (only move; 17...♗a6 18 ♗xh6 ♗xh6 19 ♖f6#) 18 ♖d5! with a virtually decisive advantage.

14 ♗xh6! ♗xh6

14...♕xd1 15 ♗g5+ +–.

15 ♕f3 ♗g7 *(D)*

The f6-square had to be protected: 15...♖e8 16 ♖ad1 ♕b7 17 ♕f6+ ♔f8 18 ♕h8+ ♔e7 19 ♘d5+.

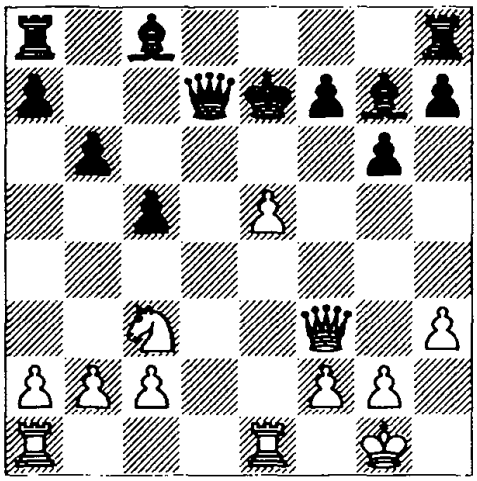
Now comes the final blast of the attack.

16 ♘d5+!

16 ♕xa8? is bad: 16...♗b7 17 ♕xa7 ♕c6 18 f3 ♖a8.

16...♔d8

16...♔f8 17 e6 ♕b7 18 e7+ ♔e8 19 ♖ad1 +–.



17 ♖ad1 ♗b7 18 ♕b3 ♗c6 19 ♘xb6 axb6 20 ♕xf7 ♗xe5 21 ♖xd7+ ♗xd7 22 ♖xe5 ♔c7 23 ♖e7 ♖ad8 24 a4 g5 25 ♕d5 ♖he8 26 ♖xh7 g4 27 a5 gxh3 28 axb6+ ♔xb6 29 ♖xd7 1-0

100)

Botvinnik – Bondarevsky

Absolute USSR Ch, Leningrad/Moscow 1941

In time-trouble, White played **39 ♘g3?** and lost after 89 moves. Botvinnik showed that he could have won at this moment. Here is his analysis:

39 ♘xd4! ♖xd4 40 ♕c3! ♕f6

40...♕d3 41 ♕c6 +–.

41 ♖g7!!

The point is to seize the g3-square, and Black is in zugzwang:

a) 41...♖xf4 42 ♕g3 ♖fe4 (42...♖f1 43 ♖g8+ ♔h7 44 ♕d3+) 43 ♖g8+ ♔h7 44 ♕g7+ ♕xg7 45 ♖1xg7#.

b) 41...♖d8! 42 h3!! (zugzwang; 42 ♕g3? ♖d1! 43 ♖g8+ ♔h7 44 ♖g7+ ♔h8 =) and now:

b1) 42...♕f5 43 ♕g3 ♕e4+ 44 ♖g2 +–.

b2) 42...♕e6 43 ♕g3 ♕e4+ 44 ♖g2 +–.

b3) 42...♕xf4 43 ♖7g4 +–.

b4) 42...♕h4 43 ♖xf7 ♕f2 44 ♖h7+ ♔xh7 45 ♕c7+.

b5) 42...h5 43 ♖7g5 +–.

b6) 42...♖xf4 43 ♕g3 h5 44 ♖g5 +–.

Index of Players

When a player's name appears in **bold**, that player had White. Otherwise the FIRST-NAMED PLAYER had White.
Numbers refer to pages. When a page number appears in *italic*, this indicates an exercise.

ADAMS – Kasimdzhanov *144*
ALEKHINE – **Euwe** 13; Euwe 73, *146*
ALEKSEEV – **Gulko** *170*
ALMASI, Z. – Winants 61
ANAND – Gelfand *161*; Kasimdzhanov 76; Nisipeanu 33; **Polgar, J.** *150*; **Svidler** 128; **Van Wely** 60
ARESHCHENKO – **Malakhov** 65
ARONIAN – Šolak *144*
AVERBAKH – Kholmov *143*
AVRUKH – **Kovačević, A.** 27
AZMAIPARASHVILI – Dreev *161*
BACROT – Filippov *158*
BAREEV – **Kramnik** 108; Lautier *154*
BELIAVSKY – Radulov *160*; **Short** *166*
BELLIN – **Ungureanu** 34
BLUVSHTEIN – Efimenko *165*; **Ehlvest** *144*
BOBOTSOV – Petrosian 43
BONDAREVSKY – **Botvinnik** *172*
BOTVINNIK – Bondarevsky *172*; Larsen 18; **Larsen** *158*; **Rabinovich, I.** *147*, *155*; **Yurgis** *146*
BRONSTEIN – Bykhovsky, An. *160*; **Keres** *163*; **Mikenas, V.** *143*; Simagin *165*
BYKHOVSKY, AN. – **Bronstein** *160*
BYRNE, R. – **Spassky** *168*
CAPABLANCA – Janowski *146*; Randolph *150*; **Tartakower** 43; Yates 15
CARLSEN – **Graf** 11; Nijboer *144*; Nikolić *144*
CHIBURDANIDZE – Polovnikova 41
COMAS FABREGO – **Polugaevsky** *155*
DELEKTA – Geller 39
DOMINGUEZ, L. – Quezada 41; **Sadvakasov** *160*
DORFMAN – **Tal** *156*
DREEV – **Azmaiparashvili** *161*; **Harikrishna** *144*
DUKE OF BRUNSWICK AND COUNT ISOUARD – **Morphy** 38
EFIMENKO – **Bluvshtein** *165*
EHLVEST – Bluvshtein *144*
ERDOS – **Gyimesi** *171*
EUWE – Alekhine 13; **Alekhine** 73, *146*
EVANS – Larsen *163*
EVSEEV – Khasangatin *151*
FANG – **Milman** 97
FILIPPOV – **Bacrot** *158*
FISCHER – **Geller** *149*; Panno 119; Schweber 120; Unzicker 63
FLOHR – Geller 109
FRIDMAN – **Konstantinopolsky** 18
FRIDSHTEIN – Lutikov *155*
GADJILY – Nisipeanu 113
GELFAND – **Anand** *161*; Georgiev, Ki. 66; Hort *166*; Korchnoi *165*; Malakhov 75; **Short** *147*; Vladimirov *149*; Wolff *145*
GELLER – **Delekta** 39; Fischer *149*; **Flohr** 109; Panno 124; **Parma** 94; **Petrosian** 129; **Smyslov** 24; Smyslov 80; **Spassky** 58
GEORGIEV, KI. – **Gelfand** 66; Kempinski *167*
GLIGORIĆ – **Savon** *156*
GOLOSHCHAPOV – Kharlov *161*
GOLUBEV – **Haznedaroglu** *150*
GRAF – Carlsen 11
GRIGORIEV – **Petrosian** 12; **Zubarev** 79
GUFELD – Klovans 111
GULKO – Alekseev *170*; Rojas Keim *155*; Timman 60
GUTMAN – Shanava *166*
GYIMESI – Erdos *171*
HABA – Lechtynsky *153*
HARIKRISHNA – Dreev *144*; Shabalov 67
HAZNEDAROGLU – Golubev *150*
HECTOR – Nakamura *150*
HODGSON – **Kuijf** 42
HOFFMANN, M. – Papp 31
HORT – **Gelfand** *166*
HORVATH, J. – Kosten *168*
HÜBNER – **Karpov** 117; **Tal** *171*

IBRAGIMOV – **Nakamura** 61
ILLESCAS – **Yusupov** 59
IVANCHUK – **Kramnik** 116; Moiseenko 28
JANOWSKI – **Capablanca** *146*
KARPOV, AL. – Ovechkin 12
KARPOV, AN. – Hübner 117; Spassky 102; Taimanov *167*
KASIMDZHANOV – **Adams** *144*; **Anand** 76; **Topalov** 45
KASPAROV – **Kramnik** 90
KEMPINSKI – **Georgiev, Ki.** *167*
KERES – Bronstein *163*; **Kholmov** *172*; Lilienthal *147*; Malich *169*; **Mikenas, V.** *162*; Spassky 32
KHALIFMAN – **Volkov** *145*
KHARLOV – **Goloshchapov** *161*
KHASANGATIN – **Evseev** *151*
KHOLMOV – **Averbakh** *143*; Keres *172*; **Petrosian** *146*
KLOVANS – **Gufeld** 111
KNEŽEVIĆ – Zaitsev, I. *160*
KONSTANTINOPOLSKY – Fridman 18
KORCHNOI – **Gelfand** *165*; Ljubojević 122; Rowson *145*; Tal *163*
KORNEEV – Speelman *164*
KOSTEN – **Horvath, J.** *168*
KOTS – **Yukhtman** *164*
KOVAČEVIĆ, A. – Avrukh 27
KRAMNIK – Bareev 108; Ivanchuk 116; Kasparov 90; **Leko** 25; Ponomariov *148*; Topalov 48
KREJČIK – Krobot 115
KROBOT – **Krejčik** 115
KUIJF – Hodgson 42
KURNOSOV – **Timofeev** *169*
KUZNETSOV, A. – Spassky 106
LARSEN – **Botvinnik** 18; Botvinnik *158*; **Evans** *163*
LAUTIER – **Bareev** *154*; **Svidler** *164*
LECHTYNSKY – **Haba** *153*
LEKO – Kramnik 25
LEPESHKIN – **Stein** 93
LILIENTHAL – **Keres** *147*; **Smyslov** 115
LJUBOJEVIĆ – **Korchnoi** 122
LÖWENTHAL – Morphy 118
LUKOVNIKOV – Sapunov *168*
LUTIKOV – **Fridshtein** *155*
MAHESH CHANDRAN – Vavrak *143*
MALAKHOV – Areshchenko 65; **Gelfand** 75
MALICH – **Keres** *169*
MALYSHEVA – **Zhao Jianchao** 91
MARZOLO – Nielsen, P.H. *164*
MIEZIS – **Smirin** 116
MIKENAS, V. – Bronstein *143*; Keres *162*
MILMAN – Fang 97
MOISEENKO – **Ivanchuk** 28
MOISEEV – **Taimanov** *161*
MORPHY – Duke of Brunswick and Count Isouard 38; **Löwenthal** 118; NN 39
NAKAMURA – **Hector** *150*; Ibragimov 61
NEUMANN – **Steinitz** 15
NEZHMETDINOV – **Polugaevsky** 82
NIELSEN, P.H. – **Marzolo** *164*
NIJBOER – **Carlsen** *144*
NIKOLIĆ – **Carlsen** *144*; **Timman** *157*
NISIPEANU – **Anand** 33; **Gadjily** 113; **Sandipan** *152*
NN – **Morphy** 39
NOVIKOV – **Vyzhmanavin** 74
ONISHCHUK – **Shirov** 92
OSNOS – Yukhtman *148*
OVECHKIN – **Karpov, Al.** 12
PALATNIK – **Yukhtman** 23
PANNO – **Fischer** 119; **Geller** 124
PANTSULAIA – Sutovsky *157*
PAPP – **Hoffmann, M.** 31
PARMA – Geller 94
PELLETIER – **Smirin** *159*
PETROSIAN – **Bobotsov** 43; Geller 129; Grigoriev 12; Kholmov *146*; **Polugaevsky** 87; Spassky *170*; Taimanov 86
PLACHETKA – Zinn 22
PLATONOV – **Tal** 96
POHLA – Yukhtman *148*
POLGAR, J. – Anand *150*; **Salov** *168*
POLOVNIKOVA – **Chiburdanidze** 41
POLUGAEVSKY – Comas Fabrego *155*; Nezhmetdinov 82; Petrosian 87; Tal 107
PONOMARIOV – **Kramnik** *148*
PORPER – **Psakhis** *151*
PORTISCH – **Stein** *152*
PRINS – **Taimanov** *167*
PSAKHIS – Porper *151*
QUEZADA – **Dominguez, L.** 41
RABINOVICH, I. – Botvinnik *147*, *155*
RADULOV – **Beliavsky** *160*
RANDOLPH – **Capablanca** *150*
REUSS – **Yusupov** *162*
RIAZANTSEV – Rublevsky 99
ROJAS KEIM – **Gulko** *155*
ROWSON – **Korchnoi** *145*
RUBLEVSKY – **Riazantsev** 99; Sadvakasov

16; Zhang Zhong 36
SADVAKASOV – **Dominguez, L.** *160*; **Rublevsky** 16
SALOV – Polgar, J. *168*
SANDIPAN – Nisipeanu *152*
SAPUNOV – **Lukovnikov** *168*
SARGISIAN – **Vaganian** *146*
SASHIKIRAN – Williams, S. 26
SAVON – Gligorić *156*
SCHMID, L. – **Spassky** *169*
SCHWEBER – **Fischer** 120
SHABALOV – **Harikrishna** 67
SHANAVA – **Gutman** *166*
SHAPOSHNIKOV – **Ulybin** 105
SHIROV – Onishchuk 92
SHORT – Beliavsky *166*; Gelfand *147*
SIMAGIN – **Bronstein** *165*
SMIRIN – **Miezis** 116; Pelletier *159*
SMYSLOV – Geller 24; **Geller** 80; Lilienthal 115
ŠOLAK – **Aronian** *144*
SPASSKY – Byrne, R. *168*; Geller 58; **Karpov** 102; **Keres** 32; **Kuznetsov, A.** 106; **Petrosian** *170*; Schmid, L. *169*; Taimanov 89; Tal 69
SPEELMAN – **Korneev** *164*; **Wells** *166*
STEIN – Lepeshkin 93; Portisch *152*; Tal *169*
STEINITZ – Neumann 15
STEPICHEV – Yukhtman *162*
SUTOVSKY – **Pantsulaia** *157*
SVIDLER – Anand 128; Lautier *164*; **Van Wely** *151*
TAIMANOV – **Karpov** *167*; Moiseev *161*; **Petrosian** 86; Prins *167*; **Spassky** 89
TAL – Dorfman *156*; Hübner *171*; **Korchnoi** *163*; Platonov 96; **Polugaevsky** 107; **Spassky** 69; **Stein** *169*
TARTAKOWER – Capablanca 43
TIMMAN – **Gulko** 60; Nikolić, P. *157*
TIMOFEEV – Kurnosov *169*
TKACHEV – Watson, W. *153*
TOPALOV – Kasimdzhanov 45; **Kramnik** 48
ULYBIN – Shaposhnikov 105
UNGUREANU – Bellin 34
UNZICKER – **Fischer** 63
VAGANIAN – Sargisian *146*
VAN WELY – Anand 60; Svidler *151*
VAVRAK – **Mahesh Chandran** *143*
VLADIMIROV – **Gelfand** *149*
VOLKOV – Khalifman *145*
VYZHMANAVIN – Novikov 74
WANG YAOYAO – **Zhang Zhong** *143*
WATSON, W. – **Tkachev** *153*
WELLS – Speelman *166*
WILLIAMS, S. – **Sashikiran** 26
WINANTS – **Almasi, Z.** 61
WOLFF – **Gelfand** *145*
YATES – **Capablanca** 15
YUKHTMAN – Kots *164*; **Osnos** *148*; Palatnik 23; **Pohla** *148*; **Stepichev** *162*
YURGIS – Botvinnik *146*
YUSUPOV – Illescas 59; Reuss *162*
ZAITSEV, I. – **Kneževič** *160*
ZHANG ZHONG – **Rublevsky** 36; Wang Yaoyao *143*
ZHAO JIANCHAO – Malysheva 91
ZINN – **Plachetka** 22
ZUBAREV – Grigoriev 79

Index of Composers

Numbers refer to pages. When a page number appears in *italic*, this indicates an exercise.

Chekhover, V. 127
Duras, O. *159*
Golubev, M. *157*
Grigoriev, N. 127
Issler, W. 114
Kivi, V. *156*
Kopaev, N. *169*
Kubbel, L. 17, *163*
Mattison, H. *159*
Moravec, J. *156*
Platov, V. and M. 64
Pogosiants, E. 11
Prokeš, L. *149*
Prokop, F. 71
Réti, R. 119
Skuja, R. *158*
Smyslov, V. 70
Troitsky, A. 111
Weenink, H. 35
Yaroslavtsev, A. 98